



From the collection of the

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J.M. STEPS RECLA & CIE EN WINTER HARBOR.

FOR THE

DISCOVERY OF A NORTH-WEST PASSAGE

FROM THE

ATLANTIC TO THE PACIFIC.

AND NARRATIVE OF

AN ATTEMPT TO REACH THE NORTH POLE.

BY

SIR W. E. PARRY, CAPT. R.N., F.R.S.

FIVE VOLUMES. WITH PLATES.

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CONTENTS
OF
THE SECOND VOLUME.

CHAPTER IX. p. 1.

OCCURRENCES at Winter Harbour in the early part of June.

Gradual dissolution of the ice upon the sea, and of the snow upon the land.

Hunting parties sent out to procure game.

Decease and burial of William Scott.

Equipment of the ships completed.

Temperate weather during the month of July.

Breaking up of the ice near the ships.

Move to the lower part of the harbour.

Separation of the ice at the entrance.

Prepare to sail.

CHAPTER X. p. 35.

Leave Winter Harbour.

Flattering appearance of the sea to the westward.

Stopped by the ice near Cape Hay.

3064123

Further progress to the longitude of $113^{\circ} 48' 29'' .5$,
being the westernmost meridian hitherto reached
in the Polar Sea, to the north of America.

Banks's Land discovered.

Increased extent and dimensions of the ice.

Return to the eastward, to endeavour to penetrate
the ice to the Southward.

Re-enter Barrow's Strait, and survey its south coast.

Pass through Sir James Lancaster's Sound, on our
return to England.

CHAPTER XI. p. 110.

Progress down the western coast of Baffin's Bay.

Meet with the whalers.

Account of some Esquimaux in the inlet called the
River Clyde.

Continue the survey of the coast, till stopped by ice
in the latitude of 68° .

Obliged to run to the eastward.

Fruitless attempts to regain the land, and final de-
parture from the ice.

Remarks upon the probable existence and practica-
bility of a North-West Passage, and upon the
Whale Fishery.

Boisterous weather in crossing the Atlantic.

Loss of the Hecla's bowsprit and foremast.

Arrival in England.

CONTENTS.

v

SECOND VOYAGE.

PRELIMINARY CHAPTER p. 169

CHAPTER I. p. 174.

Passage across the Atlantic.

**Removal of Stores from the Nautilus Transport, at
the margin of the Ice.**

Departure of the Nautilus for England.

Enter the Ice in Hudson's Strait.

**Perilous Situation of the Hecla, and loss of her
Anchor.**

Meet with the Hudson's-Bay Ships.

**Passage up the Strait, and communication with the
Natives inhabiting the Northern shores.**

**Arrival off Southampton Island, where the Re-
searches of the Expedition commence.**

CHAPTER II. p. 194.

**Review of the geographical Information obtained
by the Researches of former Navigators on the
coast of the American Continent, in the neigh-
bourhood of Wager River.**

**Discover and enter the Duke of York's Bay, sup-
posing it to be a Passage into the sea called the
Welcome.**

Leave the Duke of York's Bay, and proceed to the North-Westward.

Passage of the Frozen Strait, and arrival in Repulse Bay.

Continuity of Land there.

Observations on Shore.

Remarks concerning the Geography, Tides, and Natural History of this part of the Continental Coast.

CHAPTER III. p. 215.

Return to the Eastward through the Frozen Strait.

Discovery of Hurd Channel.

Examined in a Boat.

Loss of the Fury's Anchor.

Providential Escape of the Fury from Shipwreck.

Anchor in Duckett Cove.

Further Examination of the Coast by Boats and Walking Parties.

Ships proceed through Hurd Channel.

Are drifted by the Ice back to Southampton Island.

Unobstructed Run to the Entrance of a large Inlet leading to the North-Westward.

Ships made fast by Hawsers to the Rocks.

Further Examination of the Inlet commenced in the Boats.

CHAPTER IV. p. 255.

**Hoppner's Inlet entered and surveyed by the Boats.
Continuity of Land there determined.**

**Proceed to examine another opening leading to the
Westward.**

**Favourable Appearance of a continued Passage in
that Direction.**

Meet with some Esquimaux.

**Arrival in Ross Bay, being the termination of Lyon
Inlet.**

Discovery and Examination of various Creeks.

**Return to the Ships, after finding the Land entirely
continuous.**

**Some account of the Natural History of this part of
the Coast.**

CHAPTER V. p. 273.

**Further Examination in the Boats for the purpose of
connecting the Shores of Lyon Inlet with that of
Gore Bay.**

Continuity of the Land determined.

Fresh detention by the Ice.

Boats carried over-land.

Return to the Ships.

Progress out of the Inlet prevented by the Ice.

The Fury grounds upon a Rock.

Anchor in Safety Cove.

Heavy Easterly Gales.
Proceed out of the Inlet.
Arrival in a Bay on the South side of Winter Island.
Ships secured in Winter Quarters.

CHAPTER VI. p. 290.

**Precautions for the Security of the Ships and their
Stores.**
And for the Health and Comfort of the Crews.
**Establishment of Theatrical Entertainments and
Schools.**
Erection of an Observatory and House on Shore.
State of Health at this period.
Partial Disruption of the Ice in the Bay.
Anchors and Cables taken to the Shore.
**Gradual Increase of Cold, appearance of the Aurora
Borealis on several occasions, and various other
Meteorological Phenomena to the close of the
Year 1821.**

VOYAGE

FOR THE DISCOVERY OF A

NORTH-WEST PASSAGE.

CHAPTER IX.

Occurrences at Winter Harbour in the early part of June—Gradual Dissolution of the Ice upon the Sea and of the Snow upon the Land—Hunting Parties sent out to procure Game—Decease and Burial of William Scott—Equipment of the Ships completed—Temperate Weather during the Month of July—Breaking up of the Ice near the Ships—Move to the lower part of the Harbour—Separation of the Ice at the Entrance—Prepare to Sail—Abstract of Observations made in Winter Harbour.

I HAD the happiness to find, on my return, that the officers and men in both ships continued to enjoy the same good health as before, with the exception of Scott, who was still the only man in the Hecla's sick.

list, and whose complaint seemed such as to baffle every attempt that had been made to produce an amendment. A constant disposition to fainting and a languid sort of despondency had been, for some time past, the only symptoms which had induced Mr. Edwards to continue the anti-scorbutic treatment; and this it was sometimes absolutely necessary to discontinue for a day or two together, on account of the weak state of his bowels. During my absence he had been much worse than before, notwithstanding the greatest care and attention paid to him, but he was now once more better. He had lived almost entirely on the ptarmigan and ducks, of which a sufficient quantity had been procured to serve the sick and convalescent in both ships abundantly, and none had at this time been issued to any officer or man in the expedition.

The equipment of the ships had gone on satisfactorily during my absence, the Griper being nearly ready for sea, the Hecla not quite so forward, on account of the heavy work with the ballast, of which sixty-five

tons had been brought on board, to supply the deficiency of weight in her holds. The survey of the provisions, fuel, and other stores was completed, and the quantity and condition of them, with the exception of the lemon-juice and vinegar before mentioned, were found to be satisfactory. Indeed, the whole of the provision was ascertained to be as good as when it came out of store, more than twelve months before, except a small quantity of bread and of sugar on the outside part of a few casks, on which a little moisture appeared, and which made it expedient to use those articles first. This excellent state of our provisions must, independently of the antiseptic properties of a cold climate, which is unfavourable to the process of putrefaction or the accumulation of vermin, be mainly attributed to the care which had been taken to supply us with every article of the best quality, and to pack the whole in strong, tight casks, which were at once impervious to water and less liable to damage by accidents in the holds. With respect to vermin, I may here mention, that

not a mouse, or rat, or maggot of any kind, ever appeared on board, to my knowledge, during this voyage.

A very perceptible change had taken place in the ice of the harbour on its upper surface, it being covered with innumerable pools of water, chiefly brackish, except close in-shore, where the tides had lifted the ice considerably above the level of the sea.

Being desirous of procuring as much game as possible during the remainder of the time we might be destined still to remain in our present inactive state, and finding that the short daily excursions which our sportsmen were enabled to make in the usual way, did not take them to a sufficient distance from the ships for this purpose, I directed a party of officers and men to be prepared from each ship, under Lieutenants Beechey and Hoppner, to remain a few days out, at the distance of ten or twelve miles to the eastward and westward of the harbour, and to send in their game whenever any should be procured. They accordingly left the ships this evening, carrying with

them tents, blankets, fuel, and the same allowance of provisions as was issued on board. Lieutenant Hoppner, who commanded the party which went to the southwest, was directed carefully to watch the ice, that any appearance of its breaking up might immediately be made known to me. Captain Sabine and his men were indefatigably employed during the day in pitching a laboratory-tent, having a marquee within it, for the reception of the clocks, it being his wish, now that the weather was more favourable for the purpose, to occupy the whole of the time which might elapse previously to the sailing of the Expedition, in making a fresh series of observations for the pendulums. At half an hour before midnight, a triple rainbow appeared, the outer arch being quite complete, and strongly tinged with the prismatic colours; the second nearly perfect; and the inner one being only perceptible near its eastern leg.

A fog in the early part of the morning being dispersed by the warmth of the sun, the weather became fine and pleasant.

Having observed that the sorrel was now so far advanced in foliage as to be easily gathered in sufficient quantity for eating, I gave orders that two afternoons in each week should be occupied by all hands in collecting the leaves of this plant; each man being required to bring in, for the present, one ounce, to be served in lieu of lemon-juice, pickles, and dried herbs, which had been hitherto issued. The growth of the sorrel was from this time so quick, and the quantity of it so great on every part of the ground about the harbour, that we shortly after sent the men out every afternoon for an hour or two; in which time, besides the advantage of a healthy walk, they could without difficulty pick nearly a pound each, of this valuable anti-scorbutic, of which they were all extremely fond. A part of the leaves thus daily collected was served to the messes, both of officers and men, and eaten in various ways, such as pickles, salad, in puddings, or boiled as greens; in all of which modes it was constantly and abundantly used till we sailed

from Winter Harbour, and for three weeks after, whenever an opportunity offered of sending on shore to procure it. Of the good effects produced upon our health by the unlimited use of fresh vegetable substances, thus bountifully supplied by the hand of Nature, even where least to be expected, little doubt can be entertained, as it is well known to be a never-failing specific for scorbutic affections, to which all persons deprived of it for a length of time are probably more or less predisposed. It is reasonable, therefore, to attribute in a great degree to the use of the sorrel the efficient state of our crews at the time of our recommencing our operations at sea. We found also a few roots of scurvy-grass, but they were too rare and the leaves too small to be of any service to us.

Mr. Wakeham, with a party from the S.W., returned in the evening from a shooting excursion, having killed the first deer that we had procured this season, which gave us sixty pounds of meat. A second, sent in by Lieutenant Beechey on the 19th,

weighed only fifty-two pounds when cleaned, though not of a very small size; but these animals are extremely lean on their first arrival from the south, and appear to improve in this respect very rapidly by the good feeding they find upon this island.

By the 20th of June the land, in the immediate neighbourhood of the ships, and especially in low and sheltered situations, was much covered with the handsome purple flower of the *saxifraga oppositifolia*, which was at this time in great perfection, and gave something like cheerfulness and animation to a scene hitherto indescribably dreary in its appearance. The poppy and some other plants, which will be described hereafter, and most of which appeared in flower during the month of July, afforded us a degree of enjoyment that made us for a while forget the rigour of this severe climate.

The wind increased to a fresh gale from the north on the night of the 20th, and continued to do so during the following day; so that Captain Sabine had great difficulty in keeping his tents secure, and in spite of every

exertion the canvass came in upon one of them and put it out of its place. The ravines, which had no water in them a week before, were now discharging such deep and rapid torrents into the sea, as to render them quite impassable. The suddenness with which the changes take place during the short season which may be called summer, in this climate, must appear very striking when it is remembered that, for a part of the first week in June, we were under the necessity of thawing artificially the snow, which we made use of for water during the early part of our journey to the northward ; that, during the second week, the ground was in most parts so wet and swampy that we could with difficulty travel ; and that, had we not returned before the end of the third week, we should probably have been prevented doing so for some time, by the impossibility of crossing the ravines without great danger of being carried away by the torrents, an accident that happened to our hunting parties on one or two occasions, in endeavouring to return with their game to the ships.

Lieutenant Hoppner sent in another deer, being the largest of a herd of fifteen, notwithstanding which, it only furnished us with seventy-eight pounds of venison. Lieut. Hoppner reported that the pools upon the upper surface of the ice to the south-west were rapidly increasing in size and number, but that no indication of its breaking up had yet appeared.

On the 22d, at four P.M., a thermometer, in the shade on board the Hecla, stood at 51° , being the highest temperature we had yet registered this season. A swan was seen by Mr. Scallon on a pond to the S.W.; this was, I believe, the only bird of the kind seen during our stay here, except a dead one which was picked up on our first arrival.

On the 24th, we had frequent showers of snow, which occur in this climate more or less at all times of the year; at this season, however, when the earth is warm, it seldom or never lies on the ground for a whole day together.

Captain Sabine, among the numerous

difficulties he had to overcome in completing his series of observations for the pendulum, was now annoyed by the constant thawing and sinking of the ground, though much pains had been taken to lay a solid foundation for the clocks to stand upon; fortunately, however, no serious inconvenience arose from this new annoyance. Lieutenant Beechey and his people procured another deer, and several hares and birds, which, added to the game already received, afforded a supply sufficient to substitute for three days' regular allowance; while near the ships scarcely a single bird could now be procured. Not doubting, therefore, of the advantage of this plan, I determined to continue it till near the time of our sailing, by relieving the parties after a certain number of days' absence. The men were, in general, particularly fond of these excursions, from which they invariably returned in the best possible health, though generally a little thinner than when they went out. As a matter of good policy, it was our custom to consider the heads and hearts of the

deer as the lawful perquisites of those who killed them, which regulation served to increase their keenness in hunting, while it gave the people thus employed rather a larger share of fresh meat than those who remained on board.

Lieutenant Beechey, on his return from the eastward at midnight on the 26th, reported that the ice along shore in that direction appeared in a more forward state of dissolution than near Winter Harbour, there being almost water enough in some places to allow a boat to pass, with several large cracks in the ice extending from the land some distance to seaward. The deer had now become much more wild near the tents, and it was therefore necessary to shift the ground a little. Lieutenant Beechey succeeded in killing one of these animals, by lying down quietly, and imitating the voice of a fawn, when the deer immediately came up to him within gun-shot. The horns of the deer, killed at this season, as Mr. Fisher remarks, were 'covered with a soft skin having a downy pile or hair upon it; the

horns themselves were soft, and at the tips flexible and easily broken.' The foxes, of which they saw several, 'had a black spot, or patch, on each side of the hind-quarters, or hams.' Lieutenant Beechey reported also, that one of the Hecla's quarter-masters, who belonged to his party, had met with the crown-bone of a whale, at the distance of a mile from the sea, and considerably above its present level. Another was subsequently found in a similar situation, more than a mile to the north of the harbour, and nearly buried in the earth, which was hard frozen around it.

On the 29th, one of the men, in returning on board, from the daily occupation of gathering sorrel, found in a hole upon the ice a small fish, which appeared to be of the whiting species, and on going to examine the place where it was picked up, Mr. Edwards and myself found two others exactly similar. As there was as yet no communication between the sea and the upper surface of the ice, sufficiently large to admit these fish, it became a matter of question in what man-

ner they had got into the situation in which we found them. It appeared most likely that they were frozen on the surface of the water at the beginning of winter when the frost first commenced, and perhaps, therefore, had been floating there dead. We remarked that, whenever any hard substance is laid upon the ice in small quantities, it soon makes a deep hole for itself, by the heat it absorbs and radiates, by which the ice around it is melted. There were at this time upon the ice innumerable holes of this kind, some forming small, and others large pools of water; and in every one of these, without exception, some extraneous substance, such as seaweed, sand, and not unfrequently a number of small putrid shrimps were found. In one of these holes the fish alluded to were found. It was curious to see how directly contrary was the effect produced upon the ice by a quantity of straw which was put out upon it in the early part of May, and which, by preventing the access of warmth, had now become raised above the general surface more than two

feet; affording a strong practical example of the principle on which straw is made use of in ice-houses, and, what was at that time of more importance to us, a proof how much the upper surface of the ice had been insensibly wasted by dissolution.

Lieutenant Hoppner returned, on the evening of the 29th, from his hunting excursion to the south-west, bringing with him some game, and, what was to us much more acceptable, the welcome information that the ice had been observed in motion in the offing on the 22d. This circumstance was first observed by Messrs. Skene and Fife, who were of Lieutenant Hoppner's party, and who were awakened by a loud grinding noise, which, as they had soon the satisfaction to find, was occasioned by the heavy field-ice setting rapidly to the eastward, at the distance of five miles from the land, and apparently at the rate of a mile an hour. The wind was at this time moderate, but on the preceding day it had blown a fresh northerly gale.

Lieutenant Hoppner likewise reported,

that he had, in the course of his late excursion, met with a lake between four and five miles in circumference, situated at the distance of twelve or fourteen miles to the westward of the entrance of Winter Harbour, and four miles from the sea. This lake was still frozen over, but, from the nature of the banks, had the appearance of being deep; and it is, probably, the same which Mr. Fife had fallen in with, at the time he lost his way in September, 1819, and of the situation of which he had not been able to give any satisfactory account.

On the 27th of June, William Scott, of whose complaint I have before had occasion to speak, had become quite delirious, and could only be kept in bed by force. Mr. Edwards was at first in hopes that this was the effect of some temporary cause, but was afterwards of opinion that it resembled, in every respect, a state of absolute and permanent derangement; and this opinion was subsequently strengthened by some circumstances which only now came to our knowledge.

For some days past Scott had been gradually growing worse, and on the evening of the 29th, he was so far exhausted, that Mr. Edwards did not expect him to survive through the night. At two A.M., on the 30th, I was informed by that gentleman, that Scott was dying; and before I could get my clothes on, he had breathed his last, without any apparent pain. As it was proper and desirable, in every respect, that his body should be opened, notwithstanding the prejudice which seamen entertain against this practice, and which it would, perhaps, be as well to overcome by more frequently insisting upon it, I willingly complied with Mr. Edwards's request to be allowed to perform the dissection. The result was satisfactory to the medical gentlemen in whose charge this unfortunate man had been placed; and, I may be permitted to add, to myself also, inasmuch as it proved his death to have been immediately occasioned by a disease which, perhaps, no skill nor attention could have cured in any climate, or under any cir-

cumstances, and having no immediate connexion with our present peculiar situation, or with the nature of the service in which we were engaged.

For the last two or three days, the spring-tides, which had been unusually high, overflowed the ice near the beach, so as to make it difficult to land near high water. In the general appearance of the ice in the harbour, there was no perceptible alteration from day to day, though the thawing process was certainly going on with great rapidity at this period. The officer who relieved Lieutenant Hoppner, in command of the hunting party to the south-west, received strict injunctions to watch the ice constantly, and to make an immediate report of any appearance of open water in any direction. For the last four or five days in June, we had experienced more of southerly winds than usual, the weather being generally cloudy, with a good deal of small rain, and now and then a little snow; the general temperature of the atmosphere, however,

was pleasant and comfortable to our feelings, as well as favourable to the dissolution of the ice, for which we were so anxiously looking.

On Sunday the 2d of July, after divine service had been performed, the body of the deceased was committed to the earth, on a level piece of ground about a hundred yards from the beach, with every solemnity which the occasion demanded, and the circumstances of our situation would permit. The ensigns and pendants were lowered half-mast during the procession, and the remains of our unfortunate shipmate were attended to the grave by every officer and man in both ships. To the performance of this last melancholy duty, under any circumstances sufficiently impressive, the peculiarity of the scene around us, and of the circumstances in which we were placed, could not fail to impart an additional feeling of awful solemnity, which it is more easy to imagine than to describe. A neat tombstone was afterwards placed at the head of the grave by Mr. Fisher, who

carved upon it the name of the deceased, with the other usual information.

A herd of fourteen deer being seen near the ships, a party was despatched in pursuit of them, with our customary want of success, it being almost impossible to approach them in so open and exposed a country, so that these excursions generally ended in a chase between the men and the deer; some good dogs would, perhaps, have been serviceable to us on these occasions.

Having taken on board our bower anchors and cables from the beach, on account of the difficulty we should have found in removing them after the ice began to break up, each ship placed two stream anchors on shore with hawsers from the bow and quarter, to hold them in case of any sudden motion of the ice, the pools upon which now increased very perceptibly both in depth and extent from day to day. In looking into these pools, it always appeared, during the day, as if drops of rain were falling into them; this was caused by the continual extrication of air from the ice

which was thawing below, and by the rising of the bubbles to the surface. At six p.m. the atmosphere being clear and serene, the thermometer rose to 53° in the shade, but immediately on a moderate breeze springing up from the northward it fell to 45° . On the 5th and 6th, however, it stood for three hours from 50° to 52° , with a fresh breeze from the northward, accompanied by cloudy weather; and on the afternoons of the two following days, the wind being still northerly, the atmosphere continued for some time at the temperature of 55° .

The dissolution of the ice of the harbour went on so rapidly in the early part of July, that we were greatly surprised, on the 6th, in finding, that in several of the pools of water, on its upper surface, holes were washed quite through to the sea beneath. On examining several of these, we found that the average thickness of the ice, in the upper part of the harbour, where the ships were lying, did not exceed two feet, which was much less than we had any idea of. Towards the mouth of the harbour, how-

ever, where the water was deeper, no such holes made their appearance for some days after this. It must here be remarked, that in all cases we found the ice to be first thawed and broken up in the shoalest water, in consequence, I suppose, of the greater facility with which the ground, at a small depth below the surface of the sea, absorbed and radiated the heat of the sun's rays; and, as it is in such situations that water generally freezes the first, this circumstance seems a remarkable instance of the provision of nature for maintaining such a balance in the quantity of ice annually formed and dissolved, as shall prevent any undue or extraordinary accumulation of it in any part of the Polar regions of the earth. In consequence of this circumstance, we were now enabled, for the first time, to bring our boats down to the beach, so as to allow them to float about high water, in order to prevent their being split by the sun, while in every other part of the harbour, except thus near the shore, we had not the means of doing so till some days afterwards.

On unhooking the rudders, and hauling them up on the ice for examination, we found them a good deal shaken and grazed by the blows they had received during the time the ships were beset at the entrance of Davis's Strait. We found, also, that the rudder-cases in both ships had been fitted too small, occasioning considerable difficulty in getting the rudders down when working, a circumstance by no means disadvantageous, (perhaps, indeed, rather the contrary,) on ordinary service at sea, but which should be carefully avoided in ships intended for the navigation among ice, as it is frequently necessary to unship the rudder at a short notice, in order to preserve it from injury, as our future experience was soon to teach us. This fault was, however, soon remedied, and the rudders again hung, in readiness for sea. About this time, a few flocks of looms occasionally made their appearance, invariably flying quite round the harbour, exactly over the narrow and only strip of water which I have before described as occurring next the beach, as if looking out for food.

On the 14th, a boat passed, for the first time, between the ships and the shore, in consequence of the junction of a number of the pools and holes in the ice ; and on the following day the same kind of communication was practicable between the ships. It now became necessary, therefore, to provide against the possibility of the ships being forced on shore by the total disruption of the ice between them and the beach, and the pressure of that without, by letting go a bower-anchor underfoot, which was accordingly done as soon as there was a hole in the ice under the bows of each, sufficiently large to allow the anchors to pass through. We had now been quite ready for sea for some days ; and a regular and anxious look-out was kept from the crow's-nest for any alteration in the state of the ice, which might favour our departure from Winter Harbour, in which it now became more than probable that we were destined to be detained thus inactively for a part of each month in the whole year, as we had reached it in the latter part of September,

and were likely to be prevented leaving it till after the commencement of August.

From six A.M. till six P.M. on the 17th, the thermometer stood generally from 55° to 60° ; the latter temperature being the highest which appears in the Hecla's Meteorological Journal during this summer. It will readily be conceived how pleasant such a temperature must have been to our feelings after the severe winter which immediately preceded it. The month of July is, indeed, the only one which can be called at all comfortable in the climate of Melville Island.

On the 18th, I rowed round the harbour in a boat, in order to take the soundings as far as the ice would permit; when it was worthy of remark how exactly the extent of the clear water between the ice and the shore corresponded with its depth, it being nearly a quarter of a mile wide on the north-eastern side of the harbour, where the deepest water was from eight to ten feet; while on the western side, where we found two fathoms, the passage for the boat did not

exceed forty or fifty yards in width. This channel was almost daily becoming wider, especially after a strong breeze from any quarter causing a ripple on the sea, by which the edge of the ice was constantly washed and rapidly dissolved. My intention, therefore, at this time was carefully to watch the increasing breadth of this open water; and whenever a depth of three fathoms could be found, to warp the ships through it along-shore, as the only means which appeared likely to be allowed us of commencing our summer's navigation.

On the 20th, there being a strong breeze from the N.N.E., with fog and rain, all favourable to the dispersion of the ice, that part of it which was immediately around the Hecla, and from which she had been artificially detached so long before, at length separated into pieces, and floated away; carrying with it the collection of ashes and other rubbish which had been accumulating for the last ten months: so that the ship was now once more fairly riding at anchor, but with the ice still occupying the whole

of the centre of the harbour, and within a few yards of her bows : the Griper had been set free in a similar manner a few days before. But it was only in that part of the harbour where the ships were lying that the ice had yet separated in this manner at so great a distance from the shore ; a circumstance probably occasioned by the greater radiation of heat from the ships, and from the materials of various kinds which we had occasion to deposit upon the ice during the time of our equipment.

Lieutenant Liddon accompanied me in a boat down the west shore of the harbour, to the southern point of the entrance, in order to sound along the edge of the ice, where we found from seven to fifteen feet water ; the ice about the entrance appeared still very solid and compact, and not a single hole was at this time noticed through any of the pools upon its surface, except one, which was made by a seal, and which discovered the thickness of the ice to be there between two and three feet.

There was a fresh breeze from the north-

eastward, with fine clear weather, on the 22nd, which made the Hecla swing round into twenty feet water astern; and the ice, being now moveable in the harbour, came home towards the shore with this wind, but not so much as to put any considerable strain on the cable of either ship; and the holding-ground being excellent, there was nothing to apprehend for their security.

During a walk which I took to the southward this day for the purpose of examining the ice near the mouth of the harbour, I was glad to find that a quantity of it had lately been forced up on the reef, by the pressure of the external ice,—a proof that it had some room in which to acquire motion, and which encouraged a hope that when the wind should blow directly off the land, it might drift the ice sufficiently from the shore to afford us a navigable channel to the westward. I therefore went down in a boat in the afternoon, to see if any thing could be done, but found the shore so loaded with broken ice, which a north-east wind had first separated and then drifted upon the

beach, that I could not get so far as the south point of the entrance.

A fresh gale, which blew from the northward, on the morning of the 23rd, caused a great alteration in the appearance of the ice near the ships, but none whatever in that in the offing, or at the mouth of the harbour, except that the shores were there more encumbered than before, owing to the quantity of pieces which were separated and driven down from the northward, so that our small boat could not succeed in getting along the shore. The north shore of the harbour was now, however, so clear as to induce me to send Lieutenant Beechey, with two boats, to haul the seine, in the hope of catching some such fish as we had some time ago found upon the ice. Our fishermen, however, had little success, having brought on board only three small fish, which were all that were found in the net.

On the 24th, the sails were bent, in readiness for our starting at a moment's notice, though, it must be confessed, that the motive for doing so was to make some show of

moving, rather than any expectation which I dared to entertain of soon escaping from our long and tedious confinement; for it was impossible to conceal from the men the painful fact that, in eight or nine weeks from this period, the navigable season must unavoidably come to a conclusion.

I went away in a boat early on the morning of the 25th, in order to sound the harbour in those parts where the ice would admit the boat, with a view to take advantage of the first favourable change which might present itself. The wind having come round to the southward in the afternoon, caused the separation of a large portion of ice on the northern side of that which now occupied the harbour, and the detached pieces drifting down towards us, rendered it necessary to be on our guard, lest the ships should be forced from their anchorage. On this account, as well as from an anxious and impatient desire to make a move, however trifling, from a spot in which we had now unwillingly but unavoidably passed nearly ten months, and of which we had long been

heartily tired, I directed lines to be run out for the purpose of warping the ships along the ice in the centre of the harbour, and at half-past two P.M. the anchors were weighed. As soon as a strain was put upon the lines, however, we found that the ice to which they were attached came home upon us, instead of the ships being drawn out to the southward, and we were, therefore, obliged to have recourse to the kedge-anchors, which we could scarcely find room to drop, on account of the closeness of the ice. Having warped a little way out from the shore, into five fathoms and a half, it was found impossible to proceed any farther without a change of wind, and the anchors were, therefore, dropped till such a change should take place. In the course of the evening all the loose ice drifted past us to the northward, loading that shore of the harbour with innumerable fragments of it, and leaving a considerable space of clear water along-shore to the southward. Our hunting parties were now recalled, and returned on board in good health in the course

of this and the following day; having supplied us, during the whole time which this mode had been adopted, with a quantity of game sufficient to substitute for more than one month's established proportion of meat on board both ships. Their success had of late, however, become very indifferent, as they had not seen a deer for several days, and the birds were grown extremely shy. A herd of seven musk oxen had lately been met with to the south-west.

On the morning of the 26th, it was nearly calm, with continued rain and thick weather; and there being now a space of clear water for nearly three-quarters of a mile to the southward of us, we took advantage of a breeze which sprung up from the northward to weigh, at nine A.M., and run down as far as the ice would permit, and then dropped our anchors in the best berths we could select, close to the edge of it, with the intention of advancing step by step, as it continued to separate by piece-meal. The ice across the entrance of the harbour as far as this spot, and the whole of that in the offing,

of which we had here a commanding view from the Hecla's crow's-nest, was still quite continuous and unbroken, with the same appearance of solidity as it had during the middle of winter, except that the pools of water were numerous upon its surface.

The wind being from the S.S.W. during the night of the 30th, served to close the lane of water which had appeared in the offing the preceding day, which we considered a favourable circumstance, as showing that the external mass of ice was in motion. In the course of the day, the wind shifting to the W.N.W., we once more discovered a small opening between the old and young floes, and at eleven P.M., the whole body of the ice in the harbour was perceived to be moving slowly out to the south-eastward, breaking away, for the first time, at the points which form the entrance of the harbour. This sudden and unexpected change rendering it probable that we should at length be released, I sent to Captain Sabine, who had been desirous of continuing his observations on the pendulum to the last

moment, to request he would have the clocks ready for embarkation at an early hour in the morning.

I furnished Lieutenant Liddon with instructions for his future guidance during the ensuing season of operations, appointing also certain places of rendezvous, to facilitate our meeting, in case of unavoidable separation during that period. I sent also on board the Griper, in compliance with my Instructions on that head, a chart of our late discoveries, together with a duplicate copy of every document of interest relating to the expedition.

CHAPTER X.

Leave Winter Harbour—Flattering appearance of the Sea to the Westward—Stopped by the Ice near Cape Hay—Further Progress to the Longitude of $113^{\circ} 48' 22.5''$, being the Westernmost Meridian hitherto reached in the Polar Sea, to the North of America—Banks's Land discovered—Increased Extent and Dimensions of the Ice—Return to the Eastward, to endeavour to penetrate the Ice to the Southward—Re-enter Barrow's Strait, and Survey its South Coast—Pass through Sir James Lancaster's Sound, on our Return to England.

THE wind still blowing fresh from the northward and westward, the ice continued to drift out slowly from the harbour, till, at eight A.M. August 1st, it had left the whole space between the ships and Cape Hearne completely clear, and at eleven o'clock there appeared to be water round the hummocks of ice which lie aground off that point. In

the mean time, our boats were employed in embarking the clocks, tents, and observatory, while I sounded the entrance of the harbour, in order to complete the survey, which no opportunity had offered of doing before this time. At one P.M., having got every thing on board, and the ice appearing to be still leaving the shore, we weighed, and ran out of Winter Harbour, in which we had actually, as had some time been predicted, passed ten whole months, and a part of the two remaining ones, September and August. The mind is always anxious, however, to find some ground of encouragement and hope for attaining the object of its pursuit, and we did not fail to remember, on this occasion, that short as our season of navigation must of necessity be, we were about to begin that season on the anniversary of the day on which we had commenced our discoveries from the entrance of Sir James Lancaster's Sound westward, in the preceding year; and that if we were favoured with the same degree of success during the same period as before, there

could be little doubt of the eventual accomplishment of our enterprise.

In running along-shore towards Cape Hearne, generally at the distance of half a mile from the land, we had from ten to sixteen fathoms' water, and rounded the hummocks off the point in six and a half fathoms by three P.M. As we opened the point, it was pleasing to see that the coast to the westward of it was more clear of ice, (excepting the loose pieces which lay scattered about in every direction, but which would not very materially have impeded the navigation with a fair wind,) than it had been when we first arrived off it, a month later in the foregoing year; the main ice having been blown off by the late westerly and north-westerly winds, to the distance of four or five miles from the shore, which, from all we have seen on this part of the coast, appears to be its utmost limit. The navigable channel, with a beating wind between the ice and the land, was here from one to two, or two miles and a half in width; and this seemed, from the mast-head, to continue

as far as the eye could reach along-shore to the westward.

We found the wind much more westerly after we rounded the point, which made our progress slow and tedious ; the more so, as we had every minute to luff for one piece of ice, and to bear up for another, by which much ground was unavoidably lost. We also found the ships to be considerably impeded by a tide or current setting to the eastward, which, as it slackened about seven in the evening, I considered to be the flood, the time of high water at Winter Harbour this day being about half-past seven. After a very few tacks, we had the mortification to perceive, that the Griper sailed and worked much worse than before, notwithstanding every endeavour which Lieutenant Liddon had been anxiously making, during her re-equipment, to improve those qualities in which she had been found deficient. She missed stays several times in the course of the evening, with smooth water and a fine working breeze, and, by midnight, the Hecla had gained eight miles to windward of her,

which obliged me to heave-to, notwithstanding the increased width of the navigable channel, the weather having become hazy, so as to endanger our parting company.

At three A.M., on the 2nd, the Griper having joined us, we again made sail to the westward. As, however, I could not but consider that her bad sailing had already lost us a distance of at least seven miles in the first day after our leaving harbour; and as it was evident that such detention must, if continued, absolutely preclude the possibility of accomplishing the main object of the Expedition, I addressed a letter to Lieutenant Liddon, desiring to be made acquainted with all the circumstances of the Griper's incapacity, that immediate steps might be taken either for improving her trim by any means in our power, or, in the event of failing to do so, for removing her crew and provisions to the Hecla, and prosecuting the voyage in that ship singly.

Soon after noon on the 2nd, a breeze sprung up from the S.S.W., which, being rather upon the shore, made it likely that the

ice would soon begin to close it; we therefore began to look out for a situation where the ships might be secured in-shore, behind some of the heavy grounded ice, which had so often before afforded us shelter, under similar circumstances. At one o'clock, we perceived that a heavy floe had already closed completely in with the land, at a point a little to the westward of us, preventing all hope of further progress for the present in that direction. A boat was therefore sent to examine the ice in-shore, and a favourable place having been found for our purpose, the ships were hauled in, and secured there, the Griper's bow resting on the beach, in order to allow the Hecla to lie in security without her. This place was so completely sheltered from the access of the main body of the ice, that I began to think seriously of taking advantage of this situation to remove the Griper's crew on board the Hecla, and had consulted the officers upon the subject. The circumstances, however, which subsequently occurred, rendering such a measure inexpedient, because no longer necessary to the

accomplishment of the object in view, by which alone it could be justified, I was induced to give it up, adopting the best means in our power to remedy the evil in question.

The beach near which we were lying is so bold, that in standing off-and-on in the afternoon, in more than one part, we had from seven to ten fathoms at two hundred yards from the shore; to which distance, from the confidence we had acquired in the regularity of the soundings, we had no hesitation in standing as often as there was occasion to do so, and always without any apparent risk. So perfectly free from danger, indeed, is the whole of this coast, as long as the hand-leads are kept going, that it has often occurred to me as not improbable, that the annual motion of large and heavy masses of ice may in some degree prevent the accumulation of sandy shoals near the shore, where local circumstances might otherwise tend to produce them, as in other seas.

Shortly after our anchoring, the Griper's people heard the growling of a bear among

the ice near them, but the animal did not appear; and this was the only instance of our meeting with a bear during our stay at Melville Island, except that which followed one of our men to the ships, soon after our arrival in Winter Harbour. Both crews were sent on shore to pick sorrel, which was here not less abundant than at our old quarters, but it was now almost too old to be palatable, having nearly lost its acidity and juice.

The snow which fell in the night was, in the morning of the 3d, succeeded by a thick fog, which continued during the day, preventing our seeing the state of the ice to the westward. I, therefore, despatched Mr. Palmer in a boat to the point, for the purpose of ascertaining whether it was still close there. On his return in an hour, Mr. Palmer reported that no alteration had taken place since the preceding day, there not being sufficient room for the smallest boat to pass between the ice and the point, close to which he found a depth of nine fathoms.

At one A.M. on the 4th, the loose ice was

observed to be drifting in upon us, the wind having veered to the eastward of north; and soon after a floe, of not less than five miles in length, and a mile and a half across was found to be approaching the shore at a quick rate. The ships were immediately hauled as near the shore as possible, and preparation made for unshipping the rudders, if necessary. The floe was brought up, however, by the masses of ice aground outside of us, with which it successively came in contact, and the ships remained in perfect security; the floe, as usual after the first violence is over, moved off again to a little distance from the shore.

At noon, the heavy floe at the point near us began to quit the land, and at half-past one P.M., there being a narrow passage between them, the breadth of which the breeze was constantly increasing, we cast off and stretched to the westward. The channel which opened to us as we proceeded, varied in its general breadth from one to two miles; in some places it was not more than half a mile. The wind was variable and squally,

but we made great progress along the land to the S.W.b.W., and the Griper, by keeping up tolerably with the Hecla, in some measure redeemed her character with us. Having arrived off Cape Providence at eleven P.M., the wind became light and baffling, so that we had just got far enough to see that there was a free and open channel, beyond the westernmost point visible of Melville Island, when our progress was almost entirely stopped for want of a breeze to enable us to take advantage of it. The anxiety which such a detention occasions, in a sea where, without any apparent cause, the ice frequently closes the shore in the most sudden manner, can perhaps only be conceived by those who have experienced it. We had now, also, arrived off that part of the coast which, from Cape Providence westward, is high and steep near the sea, having no beach or shelving shore on which the heavy masses of ice can fix themselves, so as to afford security to a ship when the floes approach the land, which circumstance increased the anxiety we felt to push on, while the present

opportunity offered, with all rapidity to the westward. We remarked, in sailing near the ice this evening, while the wind was blowing a fresh breeze off the land, and therefore directly towards the ice, that it remained constantly calm within three or four hundred yards of the latter; this effect I never remember to have witnessed before, upon the windward side of any collection of ice, though it invariably happens in a remarkable degree to leeward of it. I may here mention, as a striking proof of the accuracy with which astronomical bearings of objects may be taken for marine surveys, that the relative bearing of Capes Providence and Hay, as obtained this evening when the two headlands were opening, differed only one minute from that entered in the surveying-book, and found in the same manner, the preceding year.

We had this evening occasion to observe once more that darkness in the horizon to the southward, and as far as a S.S.W. bearing, which had been noticed from this station, in 1819, and more frequently since that time,

during our detention in Winter Harbour, as bearing a great resemblance to the loom of land in that quarter. We were the more inclined to the belief that there was land at no very great distance to the southward, from the conviction that there must be something which prevented the ice being drifted off the shore of Melville Island, in this place more than five or six miles, with any direction or force of wind.

At one P.M., on the 5th, the weather continuing quite calm, and being desirous of examining the ice in-shore, that we might be ready for the floes closing upon us, I left the ship, accompanied by Captain Sabine and Mr. Edwards, and landed near one of the numerous deep and broad ravines, with which the whole of this part of the island is indented. All the ice which was here fixed to the ground was literally upon the beach, with a very deep water close alongside of it, and none of the masses projected to a sufficient distance from the shore to afford the smallest shelter to the ships in case of accidents. We saw several white hares here, and on this

and many subsequent occasions found them frequent the sides of the high banks which face the south, and where there is usually a plentiful vegetation for them to feed upon. We were ascending the hill, which was found by trigonometrical measurement to be eight hundred and forty-seven feet above the level of the sea, and on which we found no mineral production but sandstone and clay ironstone, when a breeze sprung up from the eastward, bringing up the Griper, which had been left several miles astern. We only stopped, therefore, to obtain observations for the longitude and the variation of the magnetic needle; the former of which was $112^{\circ} 53' 32''$, and the latter $110^{\circ} 56' 11''$ easterly, and then immediately returned on board and made all sail to the westward. After running for two hours without obstruction, we were once more mortified in perceiving that the ice, in very extensive and unusually heavy floes, closed in with the land a little to the westward of Cape Hay, and our channel of clear water between the ice and the land gradually diminished in breadth,

till at length it became necessary to take in the studding sails, and to haul to the wind, to look about us. I immediately left the ship, and went in a boat to examine the grounded ice off a small point of land, such as always occurs on this coast at the outlet of each ravine. I found that this point offered the only possible shelter which could be obtained, in case of the ice coming in; and I, therefore, determined to take the Hecla in-shore immediately, and to pick out the best berth which circumstances would admit. As I was returning on board with this intention, I found that the ice was already rapidly approaching the shore; no time was to be lost, therefore, in getting the Hecla to her intended station, which was effected by half-past eight P.M., being in nine to seven fathoms water, at the distance of twenty yards from the beach, which was lined all round the point with very heavy masses of ice, that had been forced by some tremendous pressure into the ground. Our situation was a dangerous one, having no shelter from ice coming from the westward,

the whole of which, being distant from us less than half a mile, was composed of floes infinitely more heavy than any we had elsewhere met with during the voyage. The Griper was three or four miles astern of us at the time the ice began to close, and I therefore directed Lieutenant Liddon by signal to secure his ship in the best manner he could, without attempting to join the Hecla; he accordingly made her fast at eleven P.M., near a point like that at which we were lying, and two or three miles to the eastward.

At the time of making the Hecla fast, a current was setting to the westward, at the rate of a mile and a half an hour, with a strong eddy running into the bight where we lay; at ten P.M. it took a sudden turn, all the loose ice near us running past the ship out of the bight, and the floes outside beginning to set to the eastward, and towards the land withal. We, therefore, hauled the ship still more into the bight formed by the point, getting her into four fathoms abaft and six forward, and abreast a part of the

beach where there was not quite so much heavy ice within us to endanger the ship being crushed. This was done from a belief that, if the floes came in, the ship must inevitably be 'nipped,' and in this case it was better to be lying in six fathoms than nine; besides, the masses of ice now inside of us, not being so large as the rest, might possibly be forced up on the shore before the ship, instead of offering so great a resistance as to expose her to all the force of the squeeze. On the whole of this steep coast, wherever we approached the shore, we found a thick stratum of blue and solid ice, firmly embedded in the beach, at the depth of from six to ten feet under the surface of the water. This ice has probably been the lower part of heavy masses forced aground by the pressure of the floes from without, and still adhering to the viscous mud of which the beach is composed, after the upper part has, in course of time, dissolved. Captain Sabine suggested, that the underground ice found in cold countries, and to which I have before alluded, might thus have been deposited.

The land gains upon the sea, as it is called, in process of time, as it has certainly done here, from the situation in which we found drift-wood and the skeletons of whales; the ice, which fixes itself upon the beach is annually covered in part by alluvial deposit, and thus may a connected stratum of it be buried for ages several feet below the surface of the earth. From the tops of the hills in this part of Melville Island a continuous line of this sub-marine ice could be distinctly traced for miles along the coast.

In running along the shore this evening, we had noticed near the sea what at a distance had every appearance of a high wall artificially built, and which was the resort of numerous birds. Captain Sabine, being desirous to examine it, as well as to procure some specimens of the birds, set out, as soon as we anchored, for that purpose, accompanied by his servant and Serjeant Martin. The wall proved to be composed of sandstone in horizontal strata from twenty to thirty feet in height, which had been left standing, so as to exhibit its present artifi-

cial appearance, by the decomposition of the rock and earth about it. Large flocks of glaucous gulls had chosen this as a secure retreat from the foxes, and every other enemy but man; and when our people first went into the ravine in which it stands, they were so fierce in defence of their young, that it was scarcely safe to approach them till a few shots had been fired.

Besides a number of gulls, Captain Sabine and his party brought with them ten hares, which, together with what we had obtained as we came along the land, furnished us with a fresh meal for the whole crew. Captain Sabine also brought me word from Lieutenant Liddon that the Griper was in a situation exactly similar to that of the Hecla, where 'nipping' appeared unavoidable, if the floes should come in. The ice remained quiet, however, about the Hecla during the day, even though a strong breeze freshened up from the E.S.E., with continued snow; a circumstance which, while it added to our present security, did not give us very flattering hopes that there could be any room

for the ice to drift to the westward. In the course of the evening I heard again from the Griper, Lieutenant Liddon informing me that the floes had once come in towards her, so as to lift her two feet out of the water, and then retired without doing any damage. I acquainted Lieutenant Liddon with the similarity of our situation to his, and desired him not to join us at present, even should the ice open sufficiently to allow him to do so; for there was not room for the two ships where the Hecla was lying, and the chances of saving one of them from the catastrophe we had reason to apprehend were greater by their being separate. At eleven P.M. a narrow lane of water opened near the Griper, extending about three miles to the S.S.W.; near us it had also slackened a little about midnight, but it would have been difficult to find a 'hole' of water in which a boat could have floated, more than three hundred yards beyond the ship.

On the morning of the 7th, a black whale came up close to the Hecla, being the first we had seen since the 22d of August the

preceding year, about the longitude of $91^{\circ} 30'$ W.; it therefore acquired among us the distinctive appellation of *the whale*. Since leaving Winter Harbour, we had also, on two or three occasions, seen a solitary seal. The wind continued fresh from the east and E.N.E. in the morning, and the loose ice came close in upon us, but the main body remained stationary at the distance of nearly half a mile. Considering that it might be of service to know the state of the ice farther to the south and west than the view from the Hecla's mast-head would allow us, I despatched Lieutenant Beechey with one of the marines, along the top of the hills to the westward, for that purpose. At two P.M. he returned with a fawn, which gave us thirty-eight pounds of venison, and with the information of having discovered land from W.S.W. to S.S.W. at a great distance, and the loom of it also extending as far round to the eastward as a S.E. bearing. Lieutenant Beechey considered the general distance of the land to be from forty to fifty miles, the nearest being about a S.S.W.

bearing, and three capes could be plainly distinguished with a glass. The report of the state of the ice was by no means favourable to our hopes, the sea being covered with floes as far as the eye could reach, and the space between them so filled with broken ice, or the floes so closely joined, that scarcely a 'hole' of water was to be seen.

In the afternoon, a man from each mess was sent on shore to pick sorrel, which was here remarkably fine and large, as well as more acid than any we had lately met with. The shelter from the northerly winds, afforded by the high land on this part of the coast, together with its southern aspect, renders the vegetation here immediately next the sea much more luxuriant than in most parts of Melville Island which we visited; and a considerable addition was made to our collection of plants.

The easterly breeze died away in the course of the day, and at three P. M. was succeeded by a light air from the opposite quarter; and as this freshened up a little, the loose ice began to drift into our bight,

and that on the eastern side of the point to drive off. It became expedient, therefore, immediately to shift the ship round the point, where she was made fast in four fathoms abaft, and seventeen feet forward, close alongside the usual ledge of submarine ice, which touched her about seven feet under water, and which, having few of the heavy masses aground upon it, would probably have allowed her to be pushed over it, had a heavy pressure occurred from without. It was the more necessary to moor the ship in some such situation, as we found from six to seven fathoms water, by dropping the hand-lead down close to her bow and quarter on the outer side.

We had scarcely secured the ship, when the wind once more shifted to the eastward, and the loose ice almost immediately began to move back in the opposite direction. The wind being however rather off the land than otherwise, I preferred remaining in our present situation, on account of the safer beach which we found here; and as there was, in other respects, little or no

choice betwixt the two places, unless the wind came more on the land. At half-past ten P. M., the loose ice began to fill up the small space which had hitherto been clear about the ship, although the wind was at N. E., which is more off the land than we had before experienced it. Several heavy pieces of floes drove close past us, not less than ten or fifteen feet in thickness, but they were fortunately stopped by a point of land without coming in upon us. At eleven o'clock, however, a mass of this kind, being about half an acre in extent, drove in, and gave the ship a considerable 'nip' between it and the land ice, and then grazed past her to the westward. I now directed the rudder to be unhung, and the ship to be swung with her head to the eastward, so that the bow, being the strongest part, might receive the first and heaviest pressure.

The ice did not disturb us again till five A. M. on the 8th, when another floe-piece came in, and gave the ship a heavy rub, and then went past, after which it continued slack about us for several hours. Every-

thing was so quiet at nine o'clock, as to induce me to venture up the hill abreast of us, in order to have a view of the newly-discovered land to the south-west, which, indeed, I had seen indistinctly and much refracted from the Hecla's deck in the morning. The weather being rather unfavourable, I had not so clear a view as Lieut. Beechey, but I distinctly saw high and bold land from S. 75° W. to S. 30° W., the part most plainly visible, and appearing the nearest, being at a S. 55° W. bearing. The general distance of this land, I considered to be somewhat greater than that at which Lieutenant Beechey had estimated it, and it is placed on the chart at from sixteen to eighteen leagues from the station at which the ships were lying. This land, which extends beyond the 117th degree of west longitude, and is the most western yet discovered in the Polar Sea, to the northward of the American continent, was honoured with the name of **BANKS'S LAND**, out of respect to the late venerable and worthy, President of the Royal Society, whose long

life was actively engaged in the encouragement and promotion of discovery and general science.

On the morning of the 9th, a musk-ox came down to graze on the beach, near the ships. A party was despatched in pursuit, and having hemmed him in under the hill, which was too steep for him to ascend, succeeded in killing him. When first brought on board, the inside of this animal, which was a male, smelt very strongly of musk, of which the whole of the meat also tasted, more or less, and especially the heart. It furnished us with four hundred and twenty-one pounds of beef, which was served to the crews as usual, in lieu of their salt provisions, and was very much relished by us, notwithstanding the peculiarity of its flavour*. The meat was remarkably fat, and, as it hung up in quarters, looked as fine as any beef in an English market. A small

* Some pieces of this meat, which we brought to England, were found to have acquired a much more disagreeable flavour than when first killed, though they had not undergone putrefaction in the slightest degree.

seal, killed by the Griper's people, was also eaten by them; and it was generally allowed to be very tender and palatable, though not very sightly in its appearance, being of a disagreeable red colour.

In the morning watch, a breeze sprung up from the westward, which we were always ready to welcome, having found that it invariably served to open the ice, while an easterly wind as constantly made it closer. This was, however, of short duration, being succeeded soon after noon by a light air from the south-east, which brought all the loose ice into our bight. At half-past three P.M., a large piece of a very heavy floe came close to us, and would have given us a 'nip' against the shore, had we not avoided it by heaving the ship a few yards a-head in good time. It was then brought up by the point of land, and remained quietly half a cable's length astern of us, there not being room for it to drift farther to the westward between the point and an enormous floe, which blocked up the passage to the southward and westward.

At ten P.M., the whole body of ice, which was then a quarter of a mile from us, was found to be drifting in upon the land, and the ship was warped back a little way to the westward, towards that part of the shore which was most favourable for allowing her to be forced up on the beach. At eleven o'clock, the piece of a floe which came near us in the afternoon, and which had since drifted back a few hundred yards to the eastward, received the pressure of the whole body of ice, as it came in. It split across in various directions, with a considerable crash, and presently after we saw a part, several hundred tons in weight, raised slowly and majestically, as if by the application of a screw, and deposited on another part of the floe from which it had broken, presenting towards us the surface that had split, which was of a fine blue colour, and very solid and transparent. The violence with which the ice was coming in being thus broken, it remained quiet during the night, which was calm, with a heavy fall of snow.

The mass of ice which had been lifted up

the preceding day, being drifted close to us on the morning of the 10th, I sent Lieutenant Beechey to measure its thickness, which proved to be forty-two feet; and, as it was a piece of a regular floe, this measurement may serve to give some idea of the general thickness of the ice in this neighbourhood.

It now became evident, from the combined experience of this and the preceding year, that there was something peculiar about the south-west extremity of Melville Island, which made the icy sea there extremely unfavourable to navigation, and which seemed likely to bid defiance to all our efforts to proceed much farther to the westward in this parallel of latitude. We had arrived off it on the 17th of September, 1819, after long and heavy gales from the north-westward, by which alone the ice is ever opened on this coast, and found it, in unusually heavy and extensive fields, completely closing in with the land, a mile or two to the eastward of where we were now lying. We again arrived here in the early part of August, and though the rest of the

navigation had been remarkably clear for fifty miles between this and Winter Harbour, seeming to afford a presumptive proof that the season was rather a favourable one than otherwise, the same obstruction presented itself as before; nor did there appear, from our late experience, a reasonable ground of hope, that any fortuitous circumstance, such as an alteration in winds or currents, was likely to remove the formidable impediments which we had now to encounter. The increased dimensions of the ice hereabouts would not alone have created an insurmountable difficulty in the navigation, but that it was very naturally accompanied by a degree of closeness which seldom or never admitted an open space of clear water of sufficient size for a ship, or even a boat to sail in. We had been lying near our present station with an easterly wind blowing fresh for thirty-six hours together; and although this was considerably off the land, beyond the western point of the island now in sight, the ice had not, during the whole of that time, moved a

single yard from the shore; affording a proof that there was no space in which the ice was at liberty to move to the westward, and offering a single and a striking exception to our former experience.

Under these circumstances, I began to consider whether it would not be advisable, whenever the ice would allow us to move, to sacrifice a few miles of the westing we had already made, and to run along the margin of the floes, in order to endeavour to find an opening leading to the southward, by taking advantage of which we might be enabled to prosecute the voyage to the westward in a lower latitude. I was the more inclined to make this attempt, from its having long become evident to us, that the navigation of this part of the Polar Sea is only to be performed by watching the occasional openings between the ice and the shore; and that, therefore, a continuity of land is essential, if not absolutely necessary, for this purpose. Such a continuity of land, which was here about to fail us, must necessarily be furnished by the northern

coast of America, in whatsoever latitude it may be found; and, as a large portion of our short season had already been occupied in fruitless attempts to penetrate farther to the westward in our present parallel, under circumstances of more than ordinary risk to the ships, I determined, whenever the ice should open sufficiently, to put into execution the plan I had proposed.

The westerly wind cleared us by slow degrees of the loose masses of ice about the ship, and in the afternoon the main body went off about three hundred yards, drifting also a little to the eastward. It may always be expected, in icy seas, that a breeze of wind, however light, will set the ice in motion, if there be any room for it to move; in such cases, the smaller pieces of course begin to drift the first, and the heavier ones soon follow, though at a slower rate: almost every separate piece is seen to move with a different velocity, proportioned to its depth under water.

Having gone on shore in the evening to make some observations for the variation, I

afterwards ascended the hill, in order to take a view of the state of the ice in the offing. The breeze had now begun to open several 'holes,' particularly in the west and south-east quarters; it was most loose in the latter direction, except close along the land to the eastward, where a ship might possibly have been got, had this been our immediate object. The ice, however, looked just as promising to the westward as in any other quarter, and I found, before I returned on board, that it continued to drift to the eastward and to leave more and more space of clear water in the required direction. I, therefore, communicated to Lieutenant Lid-don my intention of pushing on to the westward the instant the sea became clear enough for the ships to make any progress with a beating wind; but, in the event of failing to do so, that I should next try what could be done by attempting a passage considerably to the southward of our present parallel.

At seven P.M., we shipped the rudder, and crossed the top-gallant yards, in readi-

ness for moving ; and then I again ascended the hill and walked a mile to the westward, along the brow of it, that not a moment might be lost, after the ice to the westward should give us the slightest hope of making any progress by getting under-way. Although the holes had certainly increased in size and extent, there was still not sufficient room even for one of our boats to have worked to windward ; and the impossibility of the ships' doing so was rendered more apparent, on account of the current which, as I have before had occasion to remark, is always produced in these seas, soon after the springing up of a breeze, and which was now running to the eastward, at the rate of at least one mile per hour. It was evident, that any attempt to get the ships to the westward must, under circumstances so unfavourable, be attended with the certain consequence of their being drifted the contrary way ; and nothing could, therefore, be done but still to watch, which we did most anxiously, every alteration in the state of the ice. The wind, however, decreasing as

the night came on, served to diminish the hopes with which we had flattered ourselves of being speedily extricated from our present confined and dangerous situation.

At one A.M., on the 11th, I despatched Mr. Ross to the top of the hill, from whence he observed, that 'the ice had slackened considerably from W.b.S. to south, but was still too close for a ship to work among it.' At this time the wind was dying away gradually; and, at four A.M., when Mr. Ross again ascended the hill, it had fallen quite calm. The ice immediately ceased to drift to the eastward, and at half-past five, a light breeze springing up from the south-east, caused it at once to return in the opposite direction. Being desirous, if possible, to take advantage of this breeze, Lieutenant Beechey and myself again went on shore, in order to form a judgment whether there was room for the ships to sail among the ice, should it appear otherwise expedient to get them under-way. We agreed that it was by no means practicable with the present light wind, which would scarcely have

given them steerage-way, even in a clear and unincumbered sea, and much less, therefore, could have enabled them to force their way through the numberless heavy masses which lay in our way to the westward. So close, indeed, did the ice about us still continue, that it was necessary to shift the Hecla once more round to the westward of the point of land, to secure her from that which the change of wind was once more bringing back in great abundance, and at the rate of nearly a mile per hour. In an hour after we had effected this, I had reason to be satisfied with the determination to which I had come, of not getting the ships under-way, for there was literally not a single 'hole' of open water visible from the mast-head, in which a boat would have floated, except immediately under the lee of the point where we were lying, and within one hundred yards of the ship.

The weather was foggy for some hours in the morning, but cleared up in the afternoon, as the sun acquired power. The wind increased to a fresh gale from the

eastward, at nine P.M., being the second time that it had done so, while we had been lying at this station ; a circumstance which we were the more inclined to notice, as the easterly winds had hitherto been more faint and less frequent than those from the westward. In this respect, therefore, we considered ourselves unfortunate, as experience had already shewn us, that none but a westerly wind ever produced upon this coast, or, indeed, on the southern coast of any of the North Georgian Islands, the desired effect of clearing the shores of ice.

The gale continued strong during the night, and the ice quite stationary. Not a pool of clear water could be seen in any direction, except just under the lee of our point, where there was a space large enough to contain half a dozen sail of ships, till about noon, when the whole closed in upon us without any apparent cause, except that the wind blew in irregular puffs about that time, and at one P.M. it was alongside. The ship was placed in the most advantageous manner for taking the beach, or rather the

shelf of submarine ice, and the rudder again unshipped, and hung across the stem. The ice which came in contact with the ship's side consisted of very heavy loose pieces, drawing twelve or fourteen feet water, which, however, we considered as good 'fenders,' comparatively with the enormous fields which covered the sea just without them. So much, indeed, do we judge at all times by comparison, that this kind of ice, which in Davis' Strait we should not like to have had so near us, was now considered of infinite service, when interposed between the ship and the heavier floes. Every thing remained quiet for the rest of the day, without producing any pressure of consequence; the wind came round to N.b.E. at night, but without moving the ice off the land.

Early in the morning of the 13th, I received, by Mr. Griffiths, a message, from Lieutenant Liddon, acquainting me, that, at eleven o'clock on the preceding night, the ice had been setting slowly to the westward, and had at the same time closed in upon the land where the Griper was lying, by which

means she was forced against the submarine ice, and her stern lifted two feet out of the water. This pressure, Lieutenant Liddon remarked, had given her a twist, which made her crack a good deal, but apparently without suffering any material injury in her hull, though the ice was still pressing upon her when Mr. Griffiths came away. She had at first heeled inwards, but on being lifted higher, fell over towards the deep water. Under these circumstances Lieutenant Liddon had very properly landed all the journals and other documents of importance, and made every arrangement in his power for saving the provisions and stores, in case of shipwreck, which he had now every reason to anticipate. Convinced as I was that no human art or power could, in our present situation, prevent such a catastrophe, whenever the pressure of the ice became sufficient, I was more than ever satisfied with the determination to which I had previously come, of keeping the ships apart, during the continuance of these untoward circumstances, in order to increase the

chance of saving one of them from accidents of this nature. I, therefore, thought it right merely to direct Lieutenant Liddon's attention to the necessity of saving the provisions and fuel, in preference to any other species of stores, and established signals to be made upon the point of land which intervened between the ships, in case of any thing occurring. In the mean time, the ice remained so close about the Hecla, that the slightest pressure producing in it a motion towards the shore must have placed us in a situation similar to that of the Griper; and our attention was therefore diverted to the more important object of providing, by every means in our power, for the security of the larger ship, as being the principal depôt of provisions and other resources.

At five P.M. Lieutenant Liddon acquainted me by letter, that the Griper had at length righted, the ice having slackened a little around her, and that all the damage she appeared to have sustained was in her rudder, which was badly split, and would require some hours' labour to repair it, whenever

the ice should allow him to get it on shore. He also stated that, from the particular situation into which the Griper had been forced, and of the masses of ice immediately about her, a westerly wind, though it might eventually clear the shore, would, in the first place, subject her to another squeeze like that from which she had just been so opportunely released. Lieutenant Beechey observed from the hill, in the course of the day, that the ice was so compact as not to leave an opening in any direction, and that it was set so close against the shore, that nothing could have passed between them. It had moved off a few yards from the Hecla for two or three hours, and in the evening closed again, so as to press her firmly against the land, though without any material strain. This pressure arose principally from the approach of the large block of ice which I have described as having been raised up on the 9th, and which, having been frequently drifted backwards and forwards past the ship since that time, had once more stationed itself rather nearer to us than we

could have wished. I may here remark that this mass, of which we knew the dimensions by actual measurement, served, when driving among the heavy floes in the offing, as a standard of comparison, by which the height of the latter above the sea, and thence their whole bulk, could be estimated with tolerable accuracy; and it was principally in this manner that a judgment was formed of those enormous fields with which this part of the sea was incumbered.

Soon after midnight the ice pressed closer in upon the Hecla than before, giving her a heel of eighteen inches towards the shore, but without appearing to strain her in the slightest degree. By four, P.M., the pressure had gradually decreased, and the ship had only three or four inches heel; in an hour after she had perfectly righted, and the ice remained quiet for the rest of the day.

Every moment's additional detention now served to confirm me in the opinion I had formed, as to the expediency of trying, at all risks, to penetrate to the southward,

whenever the ice would allow us to move at all, rather than persevere any longer in the attempts we had been lately making with so little success, to push on directly to the westward. I, therefore, gave Lieutenant Liddon an order to run back a certain distance to the eastward, whenever he could do so, without waiting for the Hecla, should that ship be still detained; and to look out for any opening in the ice to the southward, which might seem likely to favour the object I had in view, waiting for me to join him, should any such opening occur.

The westerly breeze freshening up, with continued snow, the ice about the ship began to move at seven, P.M. The usual superficial current was soon observed to make, carrying with it to the eastward the loose and broken fragments of ice. At eight o'clock the heavier masses had also acquired motion, and it became necessary to shelter the Hecla from their approach by shifting her once more to the eastward of the point. In doing this, we found the current at the extreme point running at the

rate of two, or two and a half miles an hour, so as to require great caution in laying out our warps to prevent the ship being carried back to the eastward; and this not three hours after it had first begun to make. The frequent experience we had of the quickness with which currents are formed, in consequence merely of the wind setting the various bodies of ice in motion, naturally leads to this useful caution, that one or two trials of the set of the stream in the icy seas must not be too hastily assumed in drawing any conclusion as to its constant or periodical direction. I am convinced, indeed, that, of all the circumstances which render the navigation among ice so precarious and uncertain, there is none so liable to constant alteration, and on which, therefore, so little dependence can be placed, as an indication of the existence of a passage in this or that direction, as the set and velocity of the superficial currents.

The breeze died away in the course of the night, just as the ice was beginning to separate, and to drift away from the shore;

and, being succeeded by a wind off the land, which is here very unusual, Lieutenant Lid-
don was enabled to sail upon the Griper at
two A.M. on the 15th, in execution of the
orders I had given him. As I soon per-
ceived, however, that she made little or no
way, the wind drawing more to the east-
ward on that part of the coast, and as the
clear water was increasing along the shore
to the westward, much farther than we had
yet seen it, I made the signal of recall to the
Griper, with the intention of making another
attempt, which the present favourable ap-
pearances seemed to justify, to push forward
without delay in the desired direction. At
five A.M., therefore, as soon as the snow
had cleared away sufficiently to allow the
signal to be distinguished, we cast off, and
ran along shore, the wind having by this
time veered to the E.b.N., and blowing in
strong puffs out of the ravines as we passed
them. We sailed along, generally at the
distance of a hundred or a hundred and
fifty yards from the beach, our soundings
being from ten to seventeen fathoms ; and,

after running a mile and a half in a N.W. b.W. direction, once more found the ice offering an impenetrable obstacle to our progress westward, at a small projecting point of land just beyond us. We, therefore, hauled the ship into a berth which we were at this moment fortunate in finding abreast of us, and where we were enabled to place the Hecla within a number of heavy masses of grounded ice, such as do not often occur on this steep coast, and which, comparatively with the situation we had lately left, appeared a perfect harbour. In the mean time, the wind had failed our consort, when she was a mile and a half short of this place; and Lieutenant Liddon, after endeavouring in vain to warp up to us, was obliged, by the ice suddenly closing upon him, to place her in-shore, in the first situation he could find, which proved to be in very deep water, as well as otherwise so insecure, as not to admit a hope of saving the ship, should the ice continue to press upon her. It now became of essential importance to endeavour to get the Hecla so far into security in

her present situation, as to allow of assistance being sent to the Griper in case of accidents. With this view, I assembled the officers and ship's company, and having acquainted them with my intention, caused such arrangements to be made for sending parties round, accompanied by proper officers, as might prevent confusion whenever that measure became necessary. The plan proposed was, to cut large scuttles or holes in the decks, if time were allowed for doing so, whenever the wreck of the ship should appear to be unavoidable, in order to allow the casks of provisions to float up out of the hold, as in any other case they must have sunk with the ship, in deep water. The Hecla's crew were set to work to saw off some thick tongues of ice, which prevented her going into a sort of 'natural dock,' as the sailors term it, formed by the masses of grounded ice; a tedious and cold operation, which they performed with their usual alacrity, and thus placed the ship in complete security. I then walked round to the Griper to acquaint Lieutenant Liddon with the

arrangements that had been made, and to consult with him as to the other means to be adopted for her safety, and the preservation of her stores. We were shortly afterwards, however, relieved from any further apprehension on this account, -by the ice gradually receding from the shore, in consequence of a westerly breeze springing up, and allowing the Griper to warp up near the Hecla, where, though she was by no means so safe as that ship, she was at least placed in a situation, with which the extraordinary nature of our late navigation taught us to be satisfied.

Mr. Fisher found very good sport in our new station, having returned in the evening, after a few hours' excursion, with nine hares; the birds had, of late, almost entirely deserted us, a flock or two of ptarmigan and snow-buntings, a few glaucous gulls, a raven, and an owl, being all that had been met with for several days.

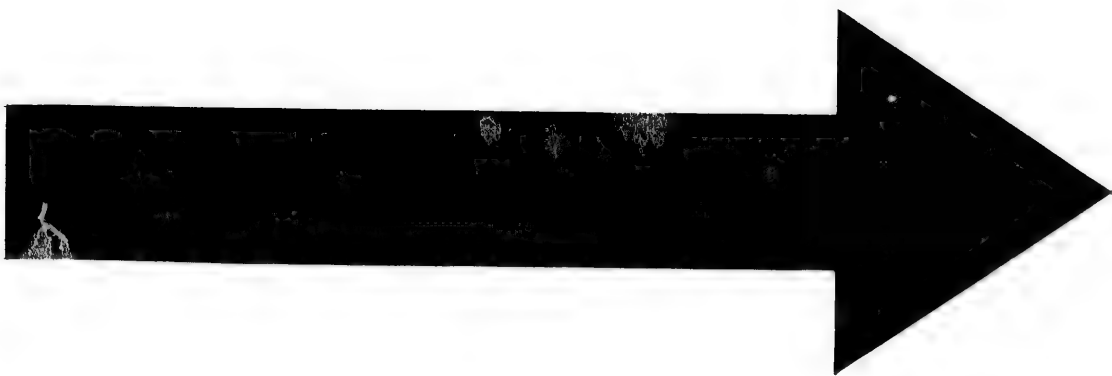
A fog which had prevailed during the night, cleared away in the morning of the 16th, and a very fine day succeeded, with a

moderate breeze from the westward. In order to have a clear and distinct view of the state of the ice, after twenty-four hours' wind from that quarter, Captain Sabine, Mr. Edwards, and myself, walked about two miles to the westward, along the high part of the land next the sea, from whence it appeared but too evident that no passage in this direction was yet to be expected. The ice to the west and south-west was as solid and compact to all appearance, as so much land; to which, indeed, the surface of so many fields, from the kind of hill and dale I have before endeavoured to describe, bore no imperfect resemblance. I have no doubt that, had it been our object to circumnavigate Melville Island, or, on the other hand, had the coast continued its westerly direction instead of turning to the northward, we should still have contrived to proceed a little occasionally, as opportunities offered, notwithstanding the increased obstruction which here presented itself; but as neither of these was the case, there seemed little or nothing to hope for from any fur-

ther attempts to prosecute the main object of the voyage in this place. I determined, therefore, no longer to delay the execution of my former intentions, and to make trial, if possible, of a more southern latitude, in which I might follow up the success that had hitherto attended our exertions.

The place to which we had now walked was the eastern bank of the largest ravine we had ever seen upon the island; its width at the part next the sea being above half a mile, and its sides, which are nearly perpendicular, not less than eight hundred feet in height. In watching the little stream, not more than a yard or two wide and a few inches in depth, now trickling along the bottom of this immense water-course, it was impossible not to be forcibly struck with the consideration of the time which must have been required, with means apparently so inadequate, to hew out so vast a bed for the annual discharge of the winter's snow into the ocean.

The station at which the ships were now lying, and which is the westernmost point



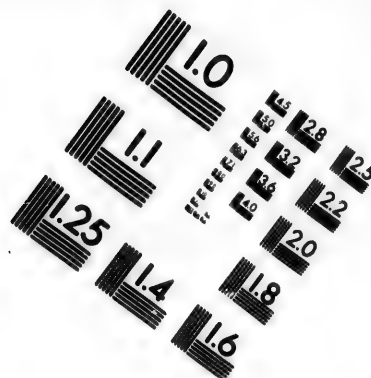
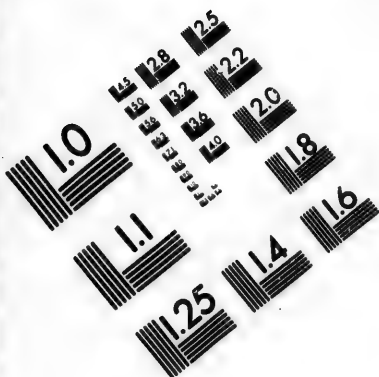
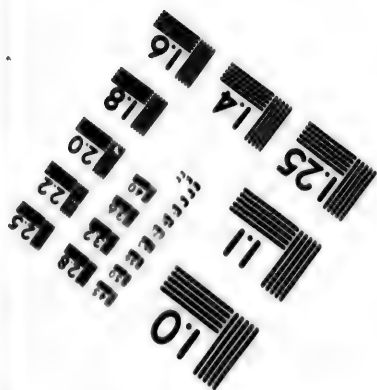
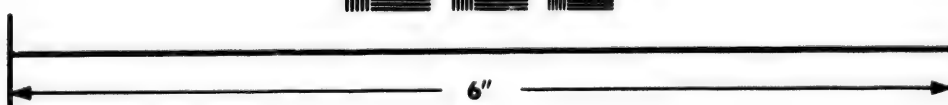
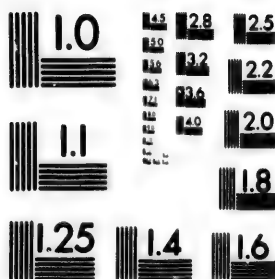


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to which the navigation of the Polar Sea to the northward of the American continent has yet been carried, is in latitude $74^{\circ} 26' 25''$, and longitude, by chronometer, $118^{\circ} 64' 43'' .5$.

At nine P.M. we were abreast the place where we had landed on the 5th, and here we perceived that the ice closed in with the land a little to the eastward. There was no security to be found for the ships without getting past one of the small points at the mouth of a ravine, against which a floe was setting the smaller pieces of ice, and had blocked up the passage before we arrived at it. After two hours' labour in heaving with hawsers, during which the Hecla narrowly escaped a severe 'nip' by the sudden closing of the ice, we succeeded in getting through, and, soon after midnight, made the ships fast to some very heavy grounded ice near the beach. We observed a number of hares feeding on the sides of the cliffs, as we sailed along in the afternoon, and also a few ptarmigan.

The place where the Hecla was now se-

cured being the only one of the kind which could be found, was a little harbour, formed as usual, by the grounded ice, some of which was fixed to the bottom in ten to twelve fathoms. One side of the entrance to this harbour consisted of masses of floes, very regular in their shape, placed quite horizontally, and broken off so exactly perpendicular, as to resemble a handsome well-built wharf. On the opposite side, however, the masses to which we looked for security were themselves rather terrific objects, as they leaned over so much towards the ship, as to give the appearance of their being in the act of falling upon her deck; and as a very trifling concussion often produces the fall of much heavier masses of ice, when in appearance very firmly fixed to the ground, I gave orders that no guns should be fired near the ship during her continuance in this situation. The Griper was of necessity made fast near the beach, in rather an exposed situation, and her rudder unshipped, in readiness for the ice coming in; it remained quiet, however, though quite close,

during the day, the weather being calm and fine.

The weather became foggy at night; the young ice, which had, for several evenings past, begun to form upon the surface of the sea, as the sun became low, did not thaw during the whole of this day. Mr. Fisher was again successful in his sporting excursion, bringing in nine hares, the greater part of which were still beautifully white; about a dozen young ptarmigan were also killed in each ship. The vegetation in this neighbourhood was much the same as in our last station; the sorrel had now become too insipid to be at all palatable.

On the 18th the weather was alternately clear and cloudy, with a slight air of wind from the S.W. The ice continued close to the land as far as we could see in both directions, and without the smallest perceptible motion till the evening, when it slackened a little along the shore. I immediately despatched Mr. Nias to Cape Providence, which was still two miles and a half to the eastward of us, to examine the appearance

of the ice beyond it. He reported, on his return, that it was slack at the distance of two hundred yards from the shore, as far as the Cape, but that to the eastward there was no appearance of clear water. As there was not the smallest security for the ships for the next three or four miles along the shore, it was necessary still to continue in our present place of refuge.

It was again nearly calm on the 19th, and the weather was foggy for some hours in the morning. In the evening, having walked to Cape Providence, to see if there was any possibility of moving the ships, I found the ice so close that a boat could not have passed beyond the Cape; but a light air drifting the ice slowly to the eastward at this time, gave me some hopes of soon being enabled to make our escape from this tedious as well as vexatious confinement. At a quarter past eight it was high-water by the shore; about this time the ice ceased driving to the eastward, and shortly after returned in the opposite direction. This coincidence, if it be only such, seemed in some degree to con-

firm what I had hitherto considered to be the case with respect to the flood-tide coming from the westward upon this coast; but it may, perhaps, have been occasioned only by the usual superficial current, as a light air sprung up from the eastward about that time.

At half-past eleven P.M., some heavy pieces of the grounded ice, to which our bow-hawser was secured, fell off into the water, snapping the rope in two, without injuring the ship. As, however, every alteration of this kind must materially change the centre of gravity of the whole mass, which already appeared in a tottering state, I thought it prudent to move the *Hecla* out of her harbour to the place where the *Griper* was lying, considering that a ship might easily be forced on shore by the ice without suffering any serious damage; but that one of those enormous masses falling upon her deck must inevitably crush or sink her.

The weather being again calm on the 20th and 21st allowed the 'young ice' to form upon the surface to such a degree as

firmly to cement together the loose pieces which hung about the ships ; and it did not thaw during those days, though the sun was shining clearly upon it for several hours.

The 'young ice' had increased to the thickness of an inch and a half on the morning of the 23d, and some snow which had fallen in the night served to cement the whole more firmly together. On a breeze springing up from the westward, however, it soon began to acquire a motion to leeward, and, at half an hour before noon, had slackened about the ships sufficiently to allow us to warp them out, which was accordingly done, and all sail made upon them. The wind having freshened up from the W.N.W., the ships' heads were got the right way, and by great attention to the sails, kept so till they had got abreast of Cape Providence, after which they were no longer manageable, the ice being more close than before. I have before remarked that the loose ice in this neighbourhood was heavy in proportion to the floes from which

it had been broken ; and the impossibility of sailing among such ice, most of which drew more water than the Hecla, and could not therefore be turned by her weight, was this day rendered very apparent, the ships having received by far the heaviest shocks which they experienced during the voyage. They continued, however, to drive till they were about three miles to the eastward of Cape Providence, where the low land commences ; when finding that there was not any appearance of open water to the eastward or southward, and that we were now incurring the risk of being beset at sea, without a chance of making any farther progress, we hauled in for the largest piece of grounded ice we could see upon the beach, which we reached at six P.M., having performed six miles of the most difficult navigation I have ever known among ice. The Hecla was made fast in from eighteen to twenty feet water close to the beach, and the Griper in four fathoms, about half a mile to the westward of us.

The situation in which the ships were

now placed, when viewed in combination with the shortness of the remaining part of the season, and the period to which our resources of every kind could be extended, was such as to require a more than ordinary consideration, in order to determine upon the measures most proper to be pursued, for the advancement of the public service and the security of the ships and people committed to my charge. Judging from the close of the summer of 1819, it was reasonable to consider the 7th of September as the limit beyond which the navigation of this part of the Polar Sea could not be performed, with tolerable safety to the ships, or with any hope of further success. Impressed, however, with a strong sense of the efforts which it became us to make in the prosecution of our enterprise, I was induced to extend this limit to the 14th of September, before which day, on the preceding year, the winter might fairly be said to have set in. But even with this extension our prospect was not very encouraging: the direct distance to Icy Cape was between

eight and nine hundred miles, while that which we had advanced towards it this season fell short of sixty miles.

I have already detailed the reasons which inclined me to believe, that there was little hope of making further progress to the westward in this latitude, and the grounds upon which I had determined to run along the edge of the ice to the eastward. Such, however, was the extreme difficulty with which we were enabled to navigate the ships in this, or any other direction, that it had for many days been equally out of our power to effect this object. Indeed, we had experienced, during the first half of the navigable season, such a continued series of vexations, disappointments, and delays, accompanied by such a constant state of danger to the ships, that I felt it would no longer be deemed justifiable in me to persevere in a fruitless attempt to get to the westward.

By Mr. Hooper's report of the remains of provisions, it appeared that, at the present reduced allowance, (namely, two-thirds

of the established proportion of the navy,) they would last until the 30th of November, 1821; and that an immediate reduction to half allowance, which must, however, tend materially to impair the health and vigour of the officers and men, would only extend our resources to the 30th of April, 1822; it therefore became a matter of evident and imperious necessity, that the ships should be cleared from the ice before the close of the season of 1821, so as to reach some station where supplies might be obtained by the end of that, or early in the following year.

By the same report, it appeared that the fuel, with which we were furnished, could only be made to extend to a period of two years and seven months, or to the end of November, 1821; and this only by resorting to the unhealthy measure of both crews living on board the Hecla, during six of the ensuing winter months. The above calculation was made according to the proportion of fuel hitherto consumed on board each ship, varying at different periods of the

year, from one and a half to three bushels of coal per day,—a quantity which, far from affording the officers and men comfort in so rigorous a climate, was found barely sufficient to preserve their health.

The ships might be considered almost as effective as when the Expedition left England; the wear and tear having been trifling, and the quantity of stores remaining on board being amply sufficient, in all probability, for a much longer period than the provisions and fuel. The health of the officers and men continued also as good, or nearly so, as at the commencement of the voyage. Considering, however, the serious loss we had sustained in the lemon-juice, the only effectual anti-scorbutic on which we could depend, during at least nine months of the year in these regions, as well as the effects likely to result from crowding nearly one hundred persons into the accommodation intended only for fifty-eight, whereby the difficulty of keeping the inhabited parts of the ship in a dry and wholesome state would have been so much increased, there cer-

tainly seemed some reason to apprehend, that a second winter would not leave us in possession of the same excellent health which we now happily enjoyed, while it is possible that the difficulty and danger of either proceeding or returning might have been increased.

These considerations, together with some others of minor importance, induced me, at this time, to call for the opinions of the principal officers of the Expedition, being desirous of profiting by their united judgment and experience, previous to forming my ultimate decision as to the measures most proper to be pursued. I, therefore, addressed a letter to Lieutenants Liddon, Beechey and Hoppner, Captain Sabine, and Messrs. Edwards and Hooper respectively, directing their attention to the different points connected with our situation which I have just detailed, and requesting their advice upon the subject within thirty-six hours after the receipt of my letter.

A herd of musk-oxen being seen at a little distance from the ships, a party was

despatched in pursuit ; and Messrs. Fisher and Bushman were fortunate in killing a fine bull, which separated from the rest of the herd, being too unwieldy to make such good way as the others. He was, however, by no means caught by our people in fair chase, for though these animals run with a hobbling sort of canter that makes them appear as if every now and then about to fall, yet the slowest of them can far outstrip a man. In this herd were two calves, much whiter than the rest, the older ones having only the white saddle. In the evening, Serjeant Martin succeeded in killing another bull ; these two animals afforded a very welcome supply of fresh meat, the first giving us three hundred and sixty-nine, and the other three hundred and fifty-two pounds of beef, which was served in the same manner as before *.

* The total quantity of game obtained for the use of the Expedition, during our stay upon the shores of Melville Island, being a period of nearly twelve months, was as follows :—3 musk-oxen, 24 deer, 68 hares, 53 geese, 59 ducks, 144 ptarmigans : affording 3,766 pounds of meat.

The wind died away soon after we reached the point, affording no hope of making, for the present, any further progress by the drifting of the ice from the land; we, therefore, hauled the ships into the best berths we could find, in doing which the *Hecla's* fore-top rested on the ground for a short time, but she was afterwards secured in four fathoms. It was low water by the shore at eight P.M.

Immediately under the hills, which here, for the first time, in sailing from Cape Providence to the eastward, recede about two miles from the sea, was the most luxuriant pasture-ground we had yet met with on Melville Island. It consisted of about a dozen acres of short thick grass, intermixed with moss, which gave it almost the same lively appearance as that of an English meadow. It was covered with the dung and foot-tracks of musk-oxen, of which twelve or fourteen skulls were picked up near it; and it was here that the herd before-mentioned was feeding. When walking over this spot, on which there were many small

ponds of water, our surprise in some degree ceased at the immense distance which these animals must travel in the course of their annual visits to these dreary and desolate regions; as such a pasture, affording undisturbed and luxuriant feeding during the summer months, may, in spite of the general dreary appearance of the island, hold out sufficient inducement for their annual emigration.

We here obtained our last supply of sorrel, the leaves of which are now become so shrivelled, as well as insipid, as to be no longer worth gathering. We saw no birds here but one or two flocks of king-ducks, a speckled owl, which was killed, and now and then a solitary glaucous gull.

Having now received the answers of the officers to my letter addressed to them on the 23d, and given the matter my most serious and mature consideration, it was necessary that I should make up my mind as to the future conduct of the Expedition. It was gratifying to me to find that the officers unanimously agreed with me in opinion

that any further attempt to penetrate to the westward in our present parallel would be altogether fruitless, and attended with a considerable loss of time, which might be more usefully employed. They also agreed with me in thinking, that the plan which I had adopted, of running back along the edge of the ice to the eastward, in order to look out for an opening that might lead us towards the American continent, was, in every respect, the most advisable; and that, in the event of failing to find any such opening, after a reasonable time spent in search, it would be expedient to return to England rather than risk the passing another winter in these seas, without the prospect of attaining any adequate object; namely, that of being able to start from an advanced station at the commencement of the following season.

Under all the circumstances of the case, therefore, I could not but admit the propriety of immediately returning to England, should our attempt to penetrate to the southward prove unsuccessful in any part of the

navigation between the position we now occupied and Barrow's Strait; as it would, in that case, be impossible to make so much progress either to the southward or the westward during the short remainder of the present season, as to bring the accomplishment of the passage through Behring's Strait within the scope of our remaining resources.

At three P.M. we were abreast of Cape Hearne; and, as we opened the bay of the Hecla and Griper, the wind, as usual on this part of the coast, came directly out from the northward; but as soon as we had stretched over to Bounty Cape, of which we were abreast at eight P.M., it drew once more along the land from the westward. We found a large quantity of loose and broken ice off Cape Hearne, and not far from the same place we came to a floe of young ice, of nearly a mile in length, and about two inches and a half in thickness, which had undoubtedly been formed this summer, probably in some of the bays and inlets in the neighbourhood of Bounty Cape.

The distance between the ice and the land increased as we proceeded, and at midnight the channel appeared to be four or five miles wide, as far as the darkness of the night would allow of our judging; for we could at this period scarcely see to read in the cabin at ten o'clock. The snow which fell during the day was observed, for the first time, to remain upon the land without dissolving; thus affording a proof of the temperature of the earth's surface having again fallen below that of freezing, and giving notice of the near approach of another long and dreary winter.

The navigable channel increased so much in breadth, as we ran to the eastward with a fresh and favourable breeze, that at eight A.M., on the morning of the 27th, when we had advanced beyond the east end of Melville Island, it was not less than ten miles wide.

At seven P.M., a fog coming on, we hauled up close to the edge of the ice, both as a guide to us in sailing during the continuance of the thick weather, and to avoid

passing any opening that might occur in it to the southward. We were, in the course of the evening, within four or five miles of the same spot where we had been on the same day and at the same hour the preceding year; and by a coincidence perhaps still more remarkable, we were here once more reduced to the same necessity as before, of steering the ships by one another for an hour or two; the Griper keeping the Hecla a-head, and our quarter-master being directed to keep the Griper right a-stern, for want of some better mode of knowing in what direction we were running. The fog froze hard as it fell upon the rigging, making it difficult to handle the ropes in working the ship, and the night was rather dark for three or four hours.

A fresh breeze continued from the S. W. b. W., with some swell, to which we had long been unaccustomed, and which, together with the extreme thickness of the weather, and the uncertainty of our course, made great caution necessary in running along the ice. We had for some time been

steering principally by the moon, but when she became obscured, we were under the necessity of hauling our wind to the northward and westward, which led us from the ice, till the weather should become more favourable.

We continued to run along the edge of the ice to the eastward, till half-past ten P.M., when, more land being discovered ahead, of the extent and position of which we had no previous knowledge, and the night growing dark, the ships were hove to with their heads to the northward and westward, in which direction there was a space of clear water several miles in extent, being in ninety fathoms, on a bottom of soft mud.

At a quarter past three, on the morning of the 30th, we bore up to the eastward, the wind continuing fresh directly down Barrow's Strait, except just after passing Prince Leopold's Islands, where it drew into Prince Regent's Inlet, and as soon as we had passed this, again assumed its former westerly direction; affording a remarkable instance of the manner in which the wind is

acted upon by the particular position of the land, even at a considerable distance from it. The islands were encumbered with ice to the distance of four or five miles all round them, but the Strait was generally as clear and navigable as any part of the Atlantic.

Having now traced the ice the whole way from the longitude of 114° to that of 90° , without discovering any opening to encourage a hope of penetrating it to the southward, I could not entertain the slightest doubt that there no longer remained a possibility of effecting our object with the present resources of the expedition; and that it was, therefore, my duty to return to England with the account of our late proceedings, that no time might be lost in following up the success with which we had been favoured, should his Majesty's government consider it expedient to do so. Having informed the officers and men in both ships of my intentions, I directed the full allowance of provisions to be, in future, issued, with such a proportion of fuel as might con-

tribute to their comfort; a luxury which, on account of the necessity that existed for the strictest economy in this article, it must be confessed, we had not often enjoyed since we entered Sir James Lancaster's Sound. We had been on two-thirds allowance of bread between ten and eleven months, and on the same reduced proportion of the other species of provisions, between three and four; and, although this quantity is scarcely enough for working men for any length of time, I believe the reduction of fuel was generally considered by far the greater privation of the two.

Our horizon being obstructed at noon, on the 31st, by the closeness of the land, I was desirous of going on shore to observe the meridian altitude; but, on hauling the ships to the wind with that intention, I found the beach so lined with ice for about half a mile out, that it was nowhere practicable to land, and the ice itself was too unsteady for the artificial horizons; we therefore continued to run to the eastward. A large bear was seen swimming, and our boats

despatched in pursuit of him ; but before the ship could be rounded to, we had run too far to keep sight of him, and the boats returned without success. We here passed several large icebergs, and a few narrow streams of ice, of the same thickness as that which usually occurs in Baffin's Bay, and which appeared very light to us, in comparison with that to which we had lately been accustomed. Being off Cape Liverpool, which headland is formed by a projecting point of the same comparatively low land that I have mentioned above, the water became of a very light green colour, and was filled with innumerable shoals of the *Argonauta Arctica*. We found no bottom with eighty fathoms of line, at the distance of two or three miles from the shore. In the course of this day's run, we saw two threshers, one black whale, a seal, some dovekeys, ivory gulls, phalaropes, and fulmar-petrels. Considering the extraordinary number of whales we had met with in our passage up Sir James Lancaster's Sound in 1819, it could not but be a matter of sur-

prise to us that we had now seen so few ; but this circumstance was afterwards satisfactorily accounted for in a manner we least expected. In the evening, being off Cape Fanshawe, we observed a long low iceberg, between that headland and Possession Bay, not less than three-quarters of a mile in length, and quite flat and even at the top ; this kind of iceberg appears to be almost entirely confined to the western coast of Baffin's Bay and Davis's Strait, as we never met with them in any other part ; they are probably formed upon the low strips of land which occur between the foot of the hills and the sea in many parts of this coast.

As it appeared to me that considerable service might be rendered by a general survey of the western coast of Baffin's Bay, which, from Sir James Lancaster's Sound southwards, might one day become an important station for our whalers, I determined to keep as close to that shore, during our passage down, as the ice and the wind would permit ; and as the experience of the former voyage had led us to suppose that this coast

would be almost clear of ice during the whole of September, I thought that this month could not be better employed than in the examination of its numerous bays and inlets. Such an examination appeared to me more desirable, from the hope of finding some new outlet into the Polar Sea, in a lower latitude than that of Sir James Lancaster's Sound—a discovery which would be of infinite importance towards the accomplishment of the North-West Passage.

Previously to commencing this survey, it was my wish to have landed at Possession Bay, of which the longitude had been accurately determined on two former occasions, in order to compare our chronometers with the time found there, as an intermediate station between Winter Harbour and England; but, as this would have detained us a whole night, with a fair wind, and with the chance of the following day being after all unfavourable for observations, I gave up my intention, and made all sail along shore to the southward. This was, however, the less to be regretted, as the few observations

obtained during our quick return from Melville Island had confirmed the accuracy of the rates assigned to the chronometers on leaving Winter Harbour.

CHAPTER XI.

Progress down the Western Coast of Baffin's Bay
—Meet with the Whalers—Account of some Esquimaux in the Inlet called the River Clyde—Continue the Survey of the Coast, till stopped by ice in the Latitude of $68\frac{1}{4}^{\circ}$ —Obliged to run to the Eastward—Fruitless attempts to regain the Land, and final Departure from the Ice—Remarks upon the probable Existence and Practicability of a North-West Passage, and upon the Whale Fishery.—Boisterous Weather in Crossing the Atlantic—Loss of the Hecla's Bowsprit and Foremast—Arrival in England.

THE wind continuing fresh from the northward, on the morning of the 1st of September, we bore up and ran along the land, taking our departure from the flag-staff in Possession Bay, bearing W.S.W. five miles, at half-past four A.M.

When abreast of the inlet, which had been called Pond's Bay on the former Expedition,

the opening of the two shores, as far as the eye could reach, appeared so large as to excite considerable interest. We, therefore, hauled in with the intention of examining it, but found the ice so close, that the ship was stopped almost in the entrance. The weather, however, was at this time remarkably clear, and it was the opinion of the officers, as well as my own, that the two shores did not unite, there being nearly a whole point of the compass in which no land was visible; and it was the general belief that this opening would be found to communicate with the Navy-Board or Admiralty Inlet.

The ice led us off very much to the eastward after leaving Pond's Bay; and the weather became calm, with small snow, towards midnight. In this day's run, the compass-courses were occasionally inserted in the log-book, begin the first time that the magnetic needle had been made use of on board the Hecla, for the purposes of navigation, for more than twelve months.

On the morning of the 3d we passed

some of the highest icebergs I have ever seen, one of them being not less than one hundred and fifty to two hundred feet above the sea, judging from the height of the Griper's masts when near it. At half-past seven A.M., being off a point of land, which is comparatively low near the sea, with hills rising at the back to the height of more than a thousand feet above the sea, we observed to the southward a remarkable dark perpendicular cliff, forming the most singular and conspicuous object we had seen upon this coast. This cliff, which in coming from the northward has the appearance of being detached, and is not unlike the Bass Rock in the Frith of Forth, is situated, as we afterwards discovered, upon an island, lying in the entrance of one of the numerous inlets, or *fiords*, with which this coast is indented. The wind becoming light and variable in the afternoon, I took the opportunity of landing near this inlet, accompanied by Captain Sabine, and some of the officers.

We landed on a bold sandy beach, two

or three miles to the northward of a low point, at the entrance of the inlet, towards which we walked, and ascended a hill at the back of the point, in order to obtain a view of this large opening. We now found that the perpendicular cliff formed the north-eastern point of a remarkably steep and precipitous island, on each side of which there is a wide and bold entrance. Above the island, the inlet branches off in at least two different directions, which our situation would not allow us to trace to any great distance, but we saw no termination to either of them.

The vegetation was tolerably luxuriant in some places upon the low land which borders the sea, consisting principally of the dwarf-willow, sorrel, saxifrage, and poppy, with a few roots of scurvy-grass. There was still a great deal of snow remaining even on the lower parts of the land, on which were numerous ponds of water; on one of these, a pair of young red-throated divers, which could not rise, were killed; and two flocks of geese, one of them con-

sisting of not less than sixty or seventy, were seen by Mr. Hooper, who described them as being very tame, running along the beach before our people, without rising, for a considerable distance. Some glaucous gulls and plovers were killed, and we met with several tracks of bears, deer, wolves, foxes, and mice. The coxswain of the boat found upon the beach part of the bone of a whale, which had been cut at one end by a sharp instrument, like an axe, with a quantity of chips lying about it, affording undoubted proof of this part of the coast having been visited at no distant period by Esquimaux; it is no more than probable, indeed, that they may inhabit the shores of this inlet, which time would not now permit us to examine. More than sixty icebergs of very large dimensions were in sight from the top of the hill, together with a number of extensive floes to the north-east and south-east, at the distance of four or five leagues from the land.

On our return on board, I found that a piece of whale-blubber, cut into a square

shape, had been picked up on the water, which we then considered as a confirmation of this part of the coast being inhabited, but which was afterwards more satisfactorily accounted for.

The wind, which had been light from the southward during the night, shifted to the north-west early in the morning, which induced me to give up the intention I had formed of further examining the inlet, and we, therefore, continued our course along shore to the southward. At seven A.M. we passed another inlet, similar to that of the preceding day, though much smaller, the land being of the same steep and precipitous character, and the water, apparently, deep near it.

While occupied in attending to the soundings, soon after noon, our astonishment may readily be conceived, on seeing, from the mast-head, a ship, and soon after, two others, in the offing, which were soon ascertained to be whalers, standing in towards the land. They afterwards bore up to the northward along the edge of the ice which intervened.

betwixt us, and we lost sight of them at night. It was now evident that this coast, which had hitherto been considered, by the whalers, as wholly inaccessible in so high a latitude, had become a fishing station like that on the opposite or Greenland shore; and the circumstance of our meeting so few whales in Sir James Lancaster's Sound this season, was at once accounted for by supposing, what, indeed, we afterwards found to be the case, that the fishing-ships had been there before us, and had, for a time, scared them from that ground. The piece of blubber we had picked up was also sufficiently accounted for in a similar manner.

It was so squally on the morning of the 5th, that we could scarcely carry our double reefed topsails, while, as we afterwards learned from the fishing-ships, which were in sight at day-light, there was scarcely a breath of wind at a few leagues' distance from the land. In running to the southward, we passed, in the course of the forenoon, a headland, which is remarkable as appearing from the northward exactly like

three round-topped islands, for which they had been taken on the voyage of 1818; but they are only small hills situated on comparatively low land, which commences from hence to the southward next the sea. We coasted this low shore, as we had done in the preceding voyage, at the distance of two or three miles, having from twenty-three to twenty-nine fathoms water. We here met with another of our fishing-ships, which proved to be the *Lee*, of Hull, Mr. Williamson, master; from whom we learned, among other events of a public nature which were altogether new to us, the public calamity which England had sustained in the death of our late venerable and beloved Sovereign, and also the death of his Royal Highness the Duke of Kent. Mr. Williamson, among others, had succeeded in getting across the ice to this coast as high as the latitude of 73° , and had come down to this part in pursuit of the fish. One or two of the ships had endeavoured to return home by running down this coast, but had found the ice so close about the latitude of

69½°, as to induce most of the others to sail to the northward, in order to get back in the same way that they came. Mr. Williamson also reported his having, a day or two before, met with some Esquimaux in the inlet named the River Clyde in 1818, which was just to the southward of us. Considering it a matter of some interest to communicate with these people, who had, probably, not been before visited by Europeans, and that it might, at the same time, be useful to examine the inlet, I bore up, as soon as I had sent our despatches and letters on board the *Lee*, and stood in towards the rocky islet, called Agnes' Monument, passing between it and the low point which forms the entrance to the inlet on the northern side.

The north shore of the entrance to this inlet has a sandy beach, along which we stood for three or four miles towards some low islands, near which we were directed to look for the Esquimaux huts. Night came on, however, before we could discover them; and we, therefore, stood out till day-light.

We saw, in the course of this day, more than a dozen large black whales, principally near the inlet; and the *Friendship*, of Hull, Mr. Macbride, master, was in sight to the eastward, with a fish alongside.

The weather was too thick, with snow, on the morning of the 6th, to allow us to stand in for the land. We spoke the *Friendship*, and Mr. Bell, one of the owners, kindly offered us any assistance in his power. The weather having cleared before noon, we bore up for the inlet, being near an immense iceberg, which, from its situation and dimensions, we recognised to be the same that had been measured in September, 1818, and found to be upwards of two miles in length. It was aground in precisely the same spot as before, where it will probably remain year after year, till gradually wasted by dissolution.

At six in the evening, being near the outermost of the islands with which we afterwards found this inlet to be studded, we observed four canoes paddling towards the ship; they approached with great confi-

dence, and came alongside without the least appearance of fear or suspicion. While paddling towards us, and indeed before we could plainly perceive their canoes, they continued to vociferate loudly ; but nothing like a song, nor even any articulate sound, which can be expressed by words, could be distinguished. Their canoes were taken on board by their own desire, plainly intimated by signs, and with their assistance, and they at once came up the side without hesitation. These people consisted of an old man, apparently much above sixty, and three younger, from nineteen to thirty years of age. As soon as they came on deck, their vociferations seemed to increase with their astonishment, and, I may add, their pleasure ; for the reception they met with seemed to create no less joy than surprise. Whenever they received a present, or were shown anything which excited fresh admiration, they expressed their delight by loud and repeated ejaculations, which they sometimes continued till they were quite hoarse, and out of breath, with the exertion.

This noisy mode of expressing their satisfaction was accompanied by a jumping which continued for a minute or more, according to the degree of the passion which excited it, and the bodily powers of the person who exercised it; the old man being rather too infirm, but still doing his utmost, to go through the performance.

After some time passed on deck, during which a few skins and ivory knives were bought from them, they were taken down into the cabin. The younger ones received the proposal to descend somewhat reluctantly, till they saw that their old companion was willing to show them the example, and they then followed without fear. We had soon occasion to remark that they were much better behaved people than the Esquimaux who had visited our ships in 1818, on the north-eastern coast of Baffin's Bay. Although we were much at a loss for an interpreter, we had no great difficulty in making the old man understand, by showing him an engraved portrait of an Esquimaux, that Lieutenant Beechey was desirous of

making a similar drawing of him. He was accordingly placed on a stool near the fire, and sat for more than an hour with very tolerable composure and steadiness, considering that a barter for their clothes, spears, and whalebone, was going on at the same time near him. He was, indeed, kept quiet by the presents which were given him from time to time; and when this failed, and he became impatient to move, I endeavoured to remind him that we wished him to keep his position, by placing my hands before me, holding up my head, and assuming a grave and demure look. We now found that the old gentleman was a mimic, as well as a very good-natured and obliging man; for, whenever I did this, he always imitated me in such a manner as to create considerable diversion among his own people, as well as ours, and then very quietly kept his seat. While he was sitting for his picture, the other three stood behind him, bartering their commodities with great honesty, but in a manner which showed them to be no strangers to traffic. If, for instance, a knife

was offered for any article, they would hesitate for a short time, till they saw we were determined to give no higher price, and then at once consented to the exchange. In this case, as well as when anything was presented to them, they immediately licked it twice with their tongues, after which they seemed to consider the bargain satisfactorily concluded. The youngest of the party very modestly kept behind the others, and, before he was observed to have done so, missed several presents, which his less diffident, though not importunate companions had received. As the night closed in, they became desirous to depart, and they left us before dark, highly delighted with their visit. As I had purchased one of their canoes, a boat was sent to land its late owner, as only one person can sit in each. Mr. Palmer informed me, that, in going on shore, the canoes could beat our boat very much in rowing whenever the Esquimaux chose to exert themselves, but they kept close to her the whole way. During the time that they were on board, we had observed in them a

great aptness for imitating certain of our words ; and, while going on shore, they took a particular liking to the expression of ' Hurra, give way ! ' which they heard Mr. Palmer use to the boat's crew, and which they frequently imitated, to the great amusement of all parties.

The calm weather which prevailed during the night was succeeded by a breeze from the westward on the morning of the 7th, of which advantage was immediately taken to beat up the inlet, which proved a very extensive one, and of which a particular chart is annexed. The sun did not break through the clouds till half-past seven, when the expected eclipse was found to have commenced, and I determined to land, with Captain Sabine, upon the nearest island, in order to observe the end of it, as well as to obtain the other usual observations, together with angles for the survey. At ten minutes past eight the sun again became obscured, and was not visible till twenty minutes past nine, when we had landed, and were prepared with our glasses, but were disappointed, in finding that the eclipse was over.

Soon after we had landed, the old Esquimaux and one of his younger companions paddled over from the main land, and joined us upon the island. They brought with them, as before, some pieces of whalebone and seal skin dresses, which were soon disposed of, great care being taken by them not to produce more than one article at a time; returning to their canoes, which were at a little distance from our boat, after the purchase of each of their commodities, till their little stock was exhausted. Considering it desirable to keep up among them the ideas of fair and honest exchange, which they already seemed to possess in no ordinary degree, I did not permit them to receive anything as presents, till all their commodities had been regularly bought. While we were waiting to obtain the sun's meridian altitude, they amused themselves in the most good-natured and cheerful manner with the boat's crew; and Lieutenant Hoppner, who, with Mr. Beverly, had joined us in the Griper's boat, took this opportunity of making a drawing of the young man. It required,

however, some show of authority, as well as some occasional rewards, to keep him quietly seated on the rock for a time sufficient for this purpose; the inclination they have to jump about, when much pleased, rendering it a penalty of no trifling nature for them to sit still for half an hour together. To show their disposition to do us what little service was in their power, he afterwards employed himself in sharpening the seamen's knives, which he did with great expertness on any flat smooth stone, returning each, as soon as finished, to its proper owner, and then making signs for another, which he sharpened and returned in the same way, without any attempt, and apparently without the smallest desire, to detain it. The old man was extremely inquisitive, and directed his attention to those things which appeared useful, rather than to those which were merely amusing. An instance of this occurred on my ordering a tin canister of preserved meat to be opened for the boats' crews' dinner. The old man was sitting on the rock, attentively watching the

operation, which was performed with an axe struck by a mallet, when one of the men came up to us with a looking-glass. I held it up to each of the Esquimaux, who had also seen one the preceding evening, and then gave it into each of their hands successively. The younger one was quite in raptures, and literally jumped for joy for nearly a quarter of an hour: but the old man, having had one smile at his own queer face, immediately resumed his former gravity, and, returning me the glass, directed his whole attention to the opening of the canister, and, when this was effected, begged very hard for the mallet which had performed so useful an office, without expressing the least wish to partake of the meat, even when he saw us eating it with good appetites. Being prevailed on, however, to taste a little of it, with some biscuit, they did not seem at all to relish it, but ate a small quantity, from an evident desire not to offend us, and then deposited the rest safely in their canoes. They could not be persuaded to taste any rum, after once smell-

ing it, even when much diluted with water. I do not know whether it be a circumstance worthy of notice, that, when a kaleidoscope or a telescope was given them to look into, they immediately shut one eye; and one of them used the right, and the other the left eye.

In getting out of their canoes, as well as into them, great care is required to preserve the balance of these frail and unsteady coracles, and in this they generally assist each other. As we were leaving the island, and they were about to follow us, we lay on our oars to observe how they would manage this; and it was gratifying to see that the young man launched the canoe of his aged companion, and, having carefully steadied it alongside the rock, till he had safely embarked, carried his own down, and contrived, though with some difficulty, to get into it without assistance. They seem to take especial care, in launching their canoes, not to rub them against the rocks, by placing one end gently in the water, and holding the other up high, till it can be deposited

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Drawn by Hens. Becher.

Engraved by J. H. Fisher.

SINGULAR APPEARANCE OF THE MOON.

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without risk of injury. As soon as we commenced rowing, the Esquimaux began to vociferate their newly-acquired expression of 'Hurra, give way!' which they continued at intervals, accompanied by the most good-humoured merriment, as we crossed over to the main land. There being now a little sea, occasioned by a weather tide, we found that our boats could easily beat their canoes in rowing, notwithstanding their utmost endeavours to keep up with us.

The two Esquimaux tents which we were now going to visit, were situated just within a low point of land, forming the eastern side of the entrance to a considerable branch of the inlet, extending some distance to the northward. The situation is warm and pleasant, having a south-westerly aspect, and being in every respect well adapted for the convenient residence of these poor people. We landed outside the point, and walked over to the tents, sending our boats, accompanied by the two canoes, round the point to meet us. As soon as we came in sight of the tents, every living animal there, men,

women, children, and dogs, were in motion—the latter to the top of the hill out of our way, and the rest to meet us with loud and continued shouting; the word *pilletay* [give me] being the only articulate sound we could distinguish amidst the general uproar. Besides the four men whom we had already seen, there were four women, one of whom, being about the same age as the old man, was probably his wife; the others were about thirty, twenty-two, and eighteen years of age. The first two of these, whom we supposed to be married to the two oldest of the young men, had infants slung in a kind of bag at their backs, much in the same way as gipsies are accustomed to carry their children. There were also seven children, from twelve to three years of age, besides the two infants in arms, or rather behind their mothers' backs; and the woman of thirty was with child.

We began, as before, by buying whatever they had to dispose of, giving in exchange knives, axes, brass kettles, needles, and other useful articles, and then added such

presents as might be further serviceable to them. From the first moment of our arrival until we left them, or rather until we had nothing left to give, the females were particularly importunate with us, and 'pilletay' resounded from the whole troop, wherever we went: they were extremely anxious to obtain our buttons, apparently more on account of the ornament of the crown and anchor which they observed upon them, than from any value they set upon their use; and several of these were cut off our jackets to please their fancy. When I first endeavoured to bargain for a sledge, the persons I addressed gave me distinctly to understand by signs that it was not their property, and pointed towards the woman who owned it; though my ignorance in this respect offered a good opportunity of defrauding me, had they been so inclined, by receiving an equivalent for that which did not belong to them: on the owner's coming forward, the bargain was quickly concluded. The pikes which I gave in exchange underwent the usual ceremony of licking, and the

sledge was carried to our boat with the most perfect understanding on both sides. In another instance, an axe was offered by some of the Griper's gentlemen, as the price of a dog, to which the woman who owned the animal consented. To show that we placed full confidence in them, the axe was given to her before the dog was caught; and she immediately went away with a kind of halter or harness of thongs, which they use for this purpose, and honestly brought one of the finest among them, though nothing would have been easier than to have evaded the performance of her contract. The readiness, however, with which they generally parted with their commodities, was by no means the effect of fear, nor did it always depend on the value of the articles offered in exchange; for, having, as I thought, concluded a bargain for a second canoe belonging to the old woman, I desired the men to hand it down to the boat; but I soon perceived that I had misunderstood her, for she clung fast to the canoe, and cried most piteously till it was set down; I then offered

a larger price than before, but she could not be induced to part with it.

The stature of these people, like that of Esquimaux in general, is much below the usual standard. The height of the old man, who was rather bent by age, was four feet eleven inches; and that of the other men, from five feet four and a half to five feet six inches. Their faces are round and plump in the younger individuals; skin smooth; complexion not very dark, except that of the old man; teeth very white; eyes small; nose broad, but not very flat; hair black, straight, and glossy; and their hands and feet extremely diminutive. The old man had a grey beard in which the black hairs predominated, and wore the hair rather long upon his upper lip, which was also the case with the eldest of the three others. One of these, we thought, bore a striking resemblance to our poor friend John Sackhouse, well known as the Esquimaux who accompanied the former Expedition, the want of whose services we particularly felt on this occasion, and whose premature death had

been sincerely lamented by all who knew him, as an intelligent and amiable man, and a valuable member of society.

The grown-up females measured from four feet ten to four feet eleven inches. The features of the two youngest were regular; their complexions clear, and by no means dark; their eyes small, black, and piercing; teeth beautifully white and perfect; and, although the form of their faces is round and chubby, and their noses rather flat than otherwise, their countenances might, perhaps, be considered pleasing, even according to the ideas of beauty which habit has taught us to entertain. Their hair, which is jet-black, hangs down long and loose about their shoulders, a part of it on each side being carelessly plaited, and sometimes rolled up into an awkward lump, instead of being neatly tied on the top of the head, as the Esquimaux women in most other parts are accustomed to wear it. The youngest female had much natural bashfulness and timidity, and we considered her to be the only unmarried one, as she differed from the

other three in not being tattooed upon the face. Two of them had their hands tattooed also, and the old woman had a few marks of the same kind about each wrist. None of the men or children were thus distinguished.

The children were generally good-looking, and the eldest boy, about twelve years of age, was a remarkably fine and even handsome lad. They were rather scared at us at first; but kind treatment, and a few trifling presents, soon removed their fears, and made them almost as importunate as the rest.

The dress of the men consists of a seal-skin jacket, with a hood, which is occasionally drawn over the head, of which it forms the only covering. The breeches are also generally of seal-skin, and are made to reach below the knee; and their boots, which meet the breeches, are made of the same material. In this dress we perceived no difference from that of the other Esquimaux, except that the jacket, instead of having a pointed flap before and behind, as usual, was quite straight behind, and had a sort of

scollop before in the centre. In the dress of the women there was not so much regard to decency as in that of the men. The jacket is of seal-skin, with a short, pointed flap before, and a long one behind, reaching almost to the ground. They had on a kind of drawers, similar to those described by Crantz as the summer dress of the Greenland women, and no breeches. The drawers cover the middle part of the body, from the hips to one-third down the thigh, the rest of which is entirely naked nearly as far as the knee. The boots are like those of the men; and, besides these, they have a pair of very loose leggings, as they may be called, which hang down carelessly upon the top of the boots, suffering their thighs to be exposed in the manner before described, but which may be intended occasionally to fasten up, so as to complete the covering of the whole body. The children are all remarkably well clothed; their dress, both in male and female, being in every respect the same as that of the men, and composed entirely of seal-skin very neatly sewed.

The tents which compose their summer-habitations are principally supported by a long pole of whalebone, fourteen feet high, standing perpendicularly, with four or five feet of it projecting above the skins which form the roof and sides. The length of the tent is seventeen, and its breadth from seven to nine feet, the narrowest part being next the door, and widening towards the inner part, where the bed, composed of a quantity of the small shrubby plant, the *Andromeda Tetragona*, occupies about one third of the whole apartment. The pole of the tent is fixed where the bed commences, and the latter is kept separate by some pieces of bone laid across the tent from side to side. The door, which faces the south-west, is also formed of two pieces of bone, with the upper ends fastened together, and the skins are made to overlap in that part of the tent, which is much lower than the inner end. The covering is fastened to the ground by curved pieces of bone, being generally parts of the whale; the tents were

ten or fifteen yards apart, and about the same distance from the beach.

The canoe which I purchased, and which was one of the best of the five that we saw, is sixteen feet eleven inches in length, and its extreme breadth two feet one inch and a half; two feet of its fore-end are out of the water when floating. It differs from the canoe of Greenland, in being somewhat lower at each end, and also in having a higher rim or gunwale, as it may be termed, round the circular hole where the man sits, which may make them somewhat safer at sea. Their construction is, in other respects, much the same; the timbers, or ribs, which are five or six inches apart, as well as the fore and aft connecting pieces, being of whalebone or drift-wood, and the skins with which they were covered, those of the seal and walrus. When the canoes are taken on shore, they are carefully placed on two upright piles or pillars of stones, four feet high from the ground, in order to allow the air to pass under to dry them, and prevent their

rotting. The paddle is double and made of fir, the edges of the blade being covered with hard bone to secure them from wearing.

The spears or darts which they use in killing seals and other sea animals, consist, like the harpoons of our fishermen, of two parts—a staff, and the spear itself; the former is usually of wood, when so scarce and valuable a commodity can be obtained, from three and a half to five feet in length, and the latter of bone, about eighteen inches long, sometimes tipped with iron, but more commonly ground to a blunt point at one end, while the other fits into a socket in the staff, to which it is firmly secured by thongs. The lines which they attach to their spears are very neatly cut out of sealskins, and when in a state of preparation, are left to stretch till dry, between the tents, and then made up into coils for use. They make use of a bladder fastened to the end of the line, in the same manner as the other Esquimaux. Besides the spears, we purchased an instrument having a rude hook of iron

let into a piece of bone, and secured by thongs to a staff, the hook being sharply pointed, but not barbed. While we were on the island (to which I had applied the name of Observation Island), it happened that a small bird flew near us, when one of the Esquimaux made the sign of shooting it with a bow and arrow, in a manner which could not be misunderstood. It is remarkable, therefore, that we could not find about their tents any of these weapons, except a little one of five or six inches long, the bow being made of whalebone, and the arrow of fir, with a feather at one end and a blunt point of bone at the other, evidently appearing to be a child's toy, and intended, perhaps, to teach the use of it at an early age.

The runners of the only sledge we saw were composed of the right and left jawbones of a young whale, being nine feet nine inches long, one foot seven inches apart, and seven inches high from the ground. They are connected by a number of parallel pieces, made out of the ribs of

the whale, and secured transversely with seizings of whalebone, so as to form the bottom of the sledge, and the back is made of two deers' horns placed in an upright position. The lower part of the runners is shod with a harder kind of bone, to resist the friction against the ground. The whole vehicle is rudely executed, and being nearly twice the weight of the sledges we saw among the northern Esquimaux, is probably intended for carrying heavy burdens. The dogs were not less than fifty or sixty in number, and had nothing about them different from those on the eastern coast of Baffin's Bay, except they do not stand near so high as those of the latitude of 76° . They are very shy and wild, and the natives had great difficulty in catching them while we were by, as well as holding them in when caught. Some of them have much more of the wolf in their appearance than others, having very long heads and sharp noses, with a brushy tail, almost always carried between the legs; while the bodies of others are less lank as well as their noses

less sharp, and they carry their tails handsomely curled over their backs: their colour varied from quite dark to brindled. The ravenous manner in which they devour their food is almost incredible. Both the old and young ones, when a bird is given them, generally swallow feathers and all; and an old dog that I purchased, though regularly fed while on board by a person appointed for that purpose, ate up, with great avidity, a large piece of canvass, a cotton handkerchief, which one of the men had just washed and laid down by his side, and a part of a check shirt. The young dogs will at any time kill themselves by over-eating, if permitted. The children appeared to have some right of property in the smaller puppies, or else their parents are very indulgent to them, for several bargains of this kind were made with them, without any objection or interference on the part of the parents, who were standing by at the time.

Within a few stones, irregularly placed in a corner of each tent, was a lump of oil and moss, and over each of these was sus-

pended a small stone vessel of an oblong shape, and broader at the top than at the bottom, containing a large mess of sea-horse flesh, with a great quantity of thick gravy. Some ribs of this meat were by no means bad looking; and but for the blood mixed with the gravy, and the dirt which accompanied the cooking, might perhaps be palatable enough. I bargained with a woman for one of the stone vessels, giving her a brass kettle in exchange. Before she gave it into my possession, she emptied the meat into another vessel, and then, with the flap of her jacket, wiped out the remains of the gravy; thus combining with what our notions of cleanliness incline us to consider a filthy act, an intention of decency and a desire to oblige us, which, however inconsistent, it was still pleasing to observe. Some of their vessels are made of whalebone, in a circular form, one piece being bent into the proper shape for the sides, and another flat piece, of the same material, sewn to it for a bottom, so closely as to make it perfectly water-tight. Their knives are made of the

tusks of the walrus, cut or ground sufficiently thin for the purpose, and retaining the original curve of the tusk, so as to resemble the little swords which children have as toys in England. As they do not appear to have any instrument like a saw, great time and labour must be required in making one of these knives, which seem to answer most of the purposes to which they have occasion to apply them.

From the description given to us by Mr. Williamson, we found that these were the same persons who had been seen by the Lee's people; but we had several proofs of their having had some previous communication, directly or indirectly, with the civilized world; such as some light blue beads, strung by themselves on thin leathern threads; and an instrument for chopping, very much resembling a cooper's adze, which had evidently been secured to a handle of bone for some time past, and of which the iron was part of an old file.

The short time which we were among them, as well as the want of an interpreter,

prevented our obtaining much of the information, which would have been interesting, respecting the language, manners, and number of this tribe of Esquimaux. They call the bear *nennook*, the deer *tooktook*, and the hare *ookalik*, being nearly the same words as those used on the eastern coast of Baffin's Bay. As it was considered a matter of some interest to ascertain whether they were acquainted with the musk-ox, a drawing of that animal was put before the men who were on board. The small size of it seemed, at first sight, to confound them ; but, as soon as the real head and horns were produced, they immediately recognised them, and eagerly repeated the word *oomingmack*, which at once satisfied us that they knew the musk-cx, and that this was the animal spoken of by the Esquimaux of Greenland, under the same name, somewhat differently pronounced.

To judge by their appearance, and, what is perhaps a better criterion, the number of their children, there could be little doubt that the means of subsistence which they

possess are very abundant ; but of this we had more direct proof, by the quantity of sea-horses and seals which we found concealed under stones along the shore of the north branch, as well as on Observation Island. Mr. Fife reported that, in sounding the north branch, he met with their winter-huts, above two miles above the tents on the same shore, and that they were partly excavated from a bank facing the sea, and the rest built round with stones.

We saw no appearance of disease among the seventeen persons who inhabited the tents, except that the eyes of the old couple were rather blear, and a very young infant looked pale and sickly. The old man had a large scar on one side of his head, which he explained to us very clearly to be a wound he had received from a *nennook* (bear). Upon the whole, these people may be considered in possession of every necessary of life, as well as of most of the comforts and conveniences which can be enjoyed in so rude a state of society. In the situation and circumstances in which the Esqui-

maux of North Greenland are placed, there is much to excite compassion for the low state to which human nature appears to be there reduced—a state in few respects superior to that of the bear or the seal which they kill for their subsistence. But, with these, it was impossible not to experience a feeling of a more pleasing kind: there was a respectful decency in their general behaviour, which at once struck us as very different from that of the other untutored Esquimaux, and in their persons there was less of that intolerable filth by which these people are so generally distinguished. But the superiority for which they are the most remarkable is, the perfect honesty which characterized all their dealings with us. During the two hours that the men were on board, and for four or five hours that we were subsequently among them on shore (on both which occasions the temptation to steal from us was perhaps stronger than we can well imagine, and the opportunity of doing so by no means wanting), not a single instance occurred, to my knowledge, of their

pilfering the most trifling article. It is pleasing to record a fact, no less singular in itself than honourable to these simple people.

Having made the necessary observations we went to the tents to take leave of our new acquaintance. The old man seemed quite fatigued with the day's exertions, but his eyes sparkled with delight, and we thought with gratitude too, on being presented with another brass kettle, to add to the stores with which we had already enriched him. He seemed to understand us when we shook him by the hand ; the whole group watched us in silence, as we went into the boat, and as soon as we had rowed a few hundred yards from the beach, quietly returned to their tents.

We bore up to run out of the inlet at six P.M., passing between Observation Island and another immediately to the northward of it, and having no bottom with the hand-leads in mid channel ; off the north end of Observation Island, however, I found the water shoal for about a hundred yards, and

then deepen at once. Soon after we had cleared the inlet, the wind backed to the southward; we therefore stood off to the eastward, and hove-to till day-light. The land to the southward of this inlet becomes low next the sea, in the same manner as that to the northward of it, and a similar regularity in the decrease of the soundings is observed in standing in-shore; we had from fifty-seven to thirty-nine fathoms in the course of the night, in which depth we met with a number of icebergs aground.

The wind being contrary on the 8th, we made very little progress to the southward. The soundings continuing as regular as before, we stood in-shore to eleven fathoms, and put the trawl overboard for an hour or two in the afternoon, bringing up a great quantity of sea-eggs, a few very small oysters, and some marine insects, but nothing that could furnish us with a fresh meal. The net was much broken by the roughness of the bottom, which consisted of very coarse sand and small stones; we tried it again in the evening, but with no better

success. The weather was at this time remarkably fine and pleasant; and it was impossible for us not to contrast our present climate with that against which we had to contend about the same period the preceding year.

In proceeding to the southward, on the 9th, we passed a headland which, like another I have before mentioned, has exactly the appearance of three islands, when seen from the northward; a deception occasioned by three small hills near the point, situated upon comparatively low land. Having passed this headland, we discovered, immediately to the southward of it, a spacious bay or inlet, at least five or six leagues deep in the north-west part of it.

The wind being fresh and squally down the inlet, on the morning of the 10th, a press of sail was carried, for the purpose of examining it; but in the course of the forenoon we were obliged to close-reef the topsails, and send down the top-gallant-yards. We found this immense bay crowded with islands, which, together with its numerous

openings, would require a considerable time to survey them accurately. Towards noon, a haze which had been resting over the western horizon cleared away, and we saw the land nearly all round the bay; but the distance at which we were was too great to enable us to ascertain satisfactorily its absolute continuity. Such, indeed, was the appearance of this magnificent inlet, of which the width of the entrance is not less than fifteen leagues, that it is highly probable some outlet may be found through it from Baffin's Bay into the Polar Sea; the strong westerly wind, and the intention I had formed of exploring this coast in a lower latitude, particularly about Cumberland Strait, prevented any further examination of it on this occasion. We crossed over, therefore, to the south shore, where we stood off-and-on till day-light should enable us to proceed to the southward. We passed, in the course of the day, the carcass of a dead whale, on which the fulmar petrels and ivory-gulls were feeding, in great numbers.

It must be remarked that, for each of the

last three days, and for these only, we had found the ship between seven and eight miles to the southward of the reckoning.

The wind having fallen, we made little progress to the south-east till the morning of the 12th, when a light breeze springing up from the south-west, all sail was made to examine the state of the ice. On approaching the floes, however, we found such a quantity of bay-ice, the formation of which upon the surface had been favoured by the late calm weather, that the Hecla was soon stopped altogether ; a circumstance which gave us, as usual, much trouble in extricating ourselves from it, but not very material as regarded our further progress to the southward, the floes being found to stretch quite close in to the land, leaving no passage whatever between them. The compasses now traversed very freely, and were made use of for the purposes of navigation, in the ordinary way.

On the 13th, which was nearly calm, the bay-ice had so much increased in thickness that the Hecla could not be moved through

it, with the assistance of the boats, two of which were rendered unserviceable by the ice cutting their planks. We were off a small inlet, near which some islands were discovered on this part of the coast.

On the 14th, having been set at liberty from the bay-ice by a breeze springing up, I determined to occupy no more time in the endeavour to get immediately along shore to the south-east, where the obstructions remained as before, but to run back a short distance along the ice to the northward, in order to endeavour to get round it if possible, and then to stretch in again towards the land. The ice had closed so much all round us, however, that we had some difficulty in finding a passage out of our present confined situation, which we at length effected before noon.

The fog continued so thick on the 16th, as to oblige us to keep the ships fast to the floe. In the afternoon the deep-sea clams were sent down to the bottom with two thousand and ten fathoms of line, which were fifty-eight minutes in running out,

during which time no perceptible check could be observed, nor even any alteration in the velocity with which the line ran out. In hauling it in again, however, which occupied both ships' companies above an hour and a half, we found such a quantity of the line covered with mud as to prove that the whole depth of water was only eight hundred and nine fathoms, the rest of the line having continued to run out by its own weight, after the instrument had struck the ground. I have before had occasion to remark that, on this account, it is not easy to ascertain the actual depth of the sea in the usual manner, when it exceeds five or six hundred fathoms.

The wind shifting to the south-west on the morning of the 17th, we were nearly beset by the loose ice closing upon us, the ships being now on the windward side of the floe. After four hours' labour we succeeded in getting clear, and made sail among loose ice to the south-east. This course, however, we were not able to continue long, as the ice led us, in the course

of the day, considerably to the northward; and, in the evening, an iceberg was selected, out of the numerous ones in sight, to which the ships were made fast before dark, it being impossible to keep them under-way during the night. We were not sorry to find some swell affecting the ships, such as we had not before experienced for more than twelve months, affording an indication of an open sea at no great distance from us. The loose and heavy pieces of ice which drifted in under the lee of the berg, and on which the ships occasionally struck with some force, kept the people constantly employed, during the night, in veering and heaving in to avoid coming in contact with them. Some bears were heard growling upon the berg, and some seals, ivory-gulls, and little auks, the latter in small flocks, were seen in the course of the day.

On the 18th, the weather continued too foggy to move the ships in the forenoon. We tried for soundings with eight hundred and ninety-seven fathoms of line, without finding bottom.

Soon after noon, the weather being somewhat less foggy, we cast off and made sail to the eastward. The ice here consisted generally of loose but heavy pieces, among which there was scarcely room to sail, and here and there a floe which obliged us to make several tacks. We also passed several square pieces of floe ice, which had evidently been cut out of a dock by some of the whalers in the course of the present season. The ships were secured to a berg at six P.M., and the wind having freshened up to a gale from the N.W.b.N., with some swell, we were much annoyed during the night by the ice which drifted under the lee of it, and on which the ships were constantly striking with a heavy shock, such as no others could have long withstood. This danger is avoided by ships lying very close under the lee of a berg, but a much greater is thereby incurred from the risk of the berg's upsetting; a circumstance which is always to be apprehended in a swell, and which must be attended with certain destruction to a ship moored very near to it.

At day-light on the 19th, we cast off from the berg, and occupied the whole of the day in unsuccessful attempts to get through the ice in to the land, of which we could only obtain a very distant glimpse, bearing from S. 24° W. to S. 69° W. By hauling to the north-eastward, we got into sufficiently clear water to enable me to keep the ships under way during the night; but, the wind falling light, great attention was requisite in avoiding the icebergs, which were numerous and of large dimensions.

On the 24th and 25th we continued our progress to the southward, but without any success in approaching, or even getting sight of, the land; the ice being as close and compact as when we sailed along the margin of it in July of the preceding year. Soon after noon, on the 24th, we crossed the Arctic Circle, having been within it fourteen months and three weeks; and at noon on the 25th had reached the latitude of $66^{\circ} 13' 14''$, being two miles and three-quarters to the southward of the dead reck-

oning, which difference had occurred on each of the twelve preceding days.

On the morning of the 26th we again stood to the westward as much as the ice would allow, but were soon obliged by it to keep away to the southward—precluding every hope of making the land on that part of the coast which it would have been most interesting to have explored. At noon we were in latitude $65^{\circ} 41' 09''$, and longitude, by chronometer, $59^{\circ} 09' 54''$. In the afternoon, after various attempts to get to the westward, appearances became more unpromising than ever, the packed ice extending from N.b.E. round to S.W. There were, indeed, parts of the ice which, with constant day-light, a ship might have entered with some probability of success; but, with twelve hours' night, the attempt must have been attended with a degree of risk which nothing but a very important object could justify. The wind had now freshened up from the N.N.W., and the mercury in the barometer fell with unusual rapidity,

with every other appearance of an approaching gale. I was, therefore, under the necessity of admitting the conclusion that, under existing circumstances, the season was now too far advanced, and the state of the ice too unfavourable, to allow of any further examination of the coast; and I determined, therefore, to make the best of my way to England. The boats were accordingly hoisted in, and the ships made snug, while in smooth water, under the lee of the ice, and a course was then shaped to the E.S.E., in order to obtain an offing, before we bore away to the southward.

OF the existence of a North-West Passage to the Pacific, it is now scarcely possible to doubt; and from the success which attended our efforts in 1819, after passing through Sir James Lancaster's Sound, we were not unreasonable in anticipating its complete accomplishment. But the season in which it is practicable to navigate the

Polar Seas does not exceed seven weeks. From all that we observed, it seems desirable that ships endeavouring to reach the Pacific Ocean by this route, should keep if possible on the coast of America, and the lower in latitude that coast may be found, the more favourable will it prove for the purpose; hence Cumberland Strait, Sir Thomas Rowe's Welcome, and Repulse Bay, appear to be the points most worthy attention. I cannot, therefore, but consider that any expedition equipped by Great Britain with this view, ought to employ its best energies in attempting to penetrate from the eastern coast of America along its northern shore. In consequence of the partial success which has hitherto attended our attempts, the whalers have already extended their views, and a new field has been opened for one of the most lucrative branches of our commerce, and, what is scarcely of less importance, one of the most valuable nurseries for seamen which Great Britain possesses. Mr. Bell, in the *Friendship*, of Hull, whom I have

before had occasion to mention, and one or two other of the ships, have sailed up to the very northernmost limits of Baffin's Bay, entered Whale Sound, and were close off the entrance of Sir Thomas Smith's Sound; an exploit which has never before been performed, since Baffin first discovered these inlets, above 200 years ago.

We ran to the southward and eastward with a fresh and favourable breeze, and without meeting with any ice after leaving its main body, except one or two icebergs, and a few straggling pieces, which, however, make it necessary to be very cautious in running at night, especially when there is any sea, the breaking of which cannot easily be distinguished from a mass of ice. On some occasions, therefore, it was necessary to heave-to for a few hours at night, a precaution which I should always recommend in the latter part of the season, till a ship

has passed well to the eastward of Cape Farewell.

On the second of October, in scudding before the wind, under the main-top-sail, a heavy sea struck the Hecla on the larboard quarter, rendering it necessary to press her forward under more canvass, by which we lost sight of the Griper in the course of the morning. As soon as the weather moderated, we hove-to for her: but, as she did not make her appearance, having, as we afterwards learned, been obliged to lie-to during the height of the gale, we continued our course out of the Straits, and did not again meet with the Griper till our return to England.

On the afternoon of the 16th, the sea being very high and irregular, and the ship pitching with considerable violence, the bowsprit was carried away close to the gammoning, and the foremast and main-top-mast immediately followed it over the side. The wreck was quickly cleared; and, by the greatest activity and energy on the part of the officers and men, the main-yard

and mainmast were saved, the latter having been endangered by the foremast falling across the stay, and the former by the wreck of the main-top-mast and top-sail-yard lying upon it. Notwithstanding the continuance of the gale, and the uneasy motion of the ship for the next two days, we succeeded in getting up our jury masts so as to make sail on the evening of the 18th.

Nothing material occurred till the afternoon of the 26th, when we struck soundings in seventy fathoms, on a bottom of coarse sand and broken shells, being in latitude $59^{\circ} 55'$, longitude $4^{\circ} 17'$ west. The weather being calm, some fishing-lines were put over, and several fine cod and torsk were caught, being the first we had met with since leaving Fair Island, at the commencement of the voyage. On the following day, we made Foul Island, bearing S. 54° E., distant eleven leagues. Previously to our parting company with the Griper, I had given Lieutenant Liddon an order, in case of separation, to repair to Lerwick in

the Shetland Islands, and to wait a week there for my arrival. On the morning of the 28th, however, being between Fair Island and the Orkneys at daylight, and the wind being fresh from the northward, I determined to proceed at once to Leith, where the necessary repairs of the Hecla's masts and rigging would be more quickly and effectually completed, previously to her venturing upon the English coast, and I should have an earlier opportunity of repairing to London, agreeably to my Instructions, to lay before my Lords Commissioners of the Admiralty a full account of the voyage.

On the 29th we made Buchanness, and on the following day, the wind having come to the southward, so as to make our progress very slow, I landed at Peterhead, accompanied by Captain Sabine and Mr. Hooper; having first, in compliance with their Lordships' directions, demanded from the officers, petty-officers, and all other persons on board the Hecla, the logs, journals, charts, drawings, and other documents

which the voyage had furnished, and directed Lieutenant Beechey to proceed with all possible despatch to Leith. Having left Mr. Hooper at Leith, to report the Hecla's arrival to Rear-Admiral Otway, the commander-in-chief at that port, and to provide fresh beef and vegetables for our people, Captain Sabine and myself proceeded without delay to London, where we arrived on the morning of the 3d of November.

Such was the excellent state of health which we at this time continued to enjoy on board the Hecla, that, during the whole season of our late navigation from Winter Harbour to the coast of Scotland, being a period of thirteen weeks, not a single case had been entered on our sick-list, except from one or two accidents of a trifling nature; and I had the happiness of seeing every officer and man on board both ships (with only one exception out of ninety-four

persons) return to their native country in as robust health as when they left it, after an absence of nearly eighteen months, during which time we had been living entirely on our own resources.

The Griper arrived at Shetland on the 1st of November, and the Hecla at Leith on the 3d. Both ships came into the River Thames about the middle of November, and were paid off at Deptford on the 21st of the following month.

END OF THE NARRATIVE.

SECOND VOYAGE
FOR THE
DISCOVERY
OF A
NORTH-WEST PASSAGE.

PRELIMINARY CHAPTER.

THE discoveries made by the Expedition to the North-west in the years 1819-20, being such as to afford a strong presumption in favour of the existence of a passage from the Atlantic to the Pacific in that direction, His Majesty commanded another attempt to be made to effect that object; and the Lords Commissioners of the Admiralty were pleased once more to honour me with the command of an expedition, to be equipped at Deptford for that purpose. The Hecla having been found well adapted to this service, a second ship of precisely the same class was now selected, and I received my commission for His Majesty's ship the Fury, of three hundred and seventy-seven tons burden, on the 30th of December, 1820. The Hecla was re-commissioned

by Captain George Francis Lyon, on the 4th of January following.

Some material alterations were made in the interior arrangements of the ships, which experience suggested as necessary to the accommodation, health, and comfort of the officers and men: and I must not here omit to notice a simple, ingenious, and effectual contrivance, now first adopted, for melting snow for our consumption as water, during the winter months, without any additional expense of fuel. The smoke issuing from the galley-fire, and indeed its heat generally, does little or no service beyond the ordinary purposes of cooking to which it is applied. It occurred to Messrs. Lambe and Nicholson to occupy a portion of the aperture through which the smoke ascends, by a metallic vessel or tank of considerable capacity, allowing the smoke to pass freely up on each side of it, and thus to communicate a constant heat to the vessel. In the top of the tank is a large circular hole for supplying it with snow from the upper deck, and in the lower part is inserted a

cock for drawing off the water. This apparatus, which was so little in the way that it could not even be seen, produced, without any increase of fuel, and with the temperature of the external atmosphere nearly at zero, sixty-five gallons of pure water from morning till night; a quantity, of course, more than sufficient for our whole consumption, had there been any occasion to limit the use of an article so conducive to health and comfort.

Cots and hammocks were substituted for the former bed places, and in the victualling of the ships several alterations were likewise made, which the experience of the last voyage suggested.

In describing the Esquimaux inhabiting the sequestered and hitherto unknown corner of the American Continent which we have recently visited, I have aimed rather at faithfulness of delineation than at height of colouring, studiously avoiding the mention of any fact of whose accuracy the slightest doubt remained upon my mind. Of the latter classes are numerous pieces

of information obtained in a cursory way from the Esquimaux, which, however, our imperfect knowledge of their language did not enable us thoroughly to understand, and which almost daily experience of our former misapprehensions subsequently taught us to receive with greater caution and distrust. In attempting a description of the manners, disposition, and general character of these people, it has been my anxious desire 'to extenuate nothing, nor set down aught in malice,' but to present, as far as it goes, a faithful and impartial sketch, divested, on the one hand, of the too flattering impression at first received from the extreme quietness of their demeanour, and on the other, of the feelings of annoyance occasioned by our subsequent acquaintance with the less favourable features in their character.

In our official instructions, I was directed to proceed as quickly as might be consistent with every precaution, towards or into Hudson's Strait until the ice was met with, when the Nautilus transport, which was

directed by the Navy Board to be placed at my disposal, was to be cleared of its provisions and stores. We were then to penetrate to the westward through Hudson's Strait, until we reached (either in Repulse Bay or on other part of the shores of Hudson's Strait, to the north of Wager River) some part of the coast, which I felt convinced was a portion of the *Continent* of America.

If we happily reached the Pacific, we were to proceed to Kamschatka, from thence to the Sandwich Islands or Canton, and having refitted the ships and refreshed the crews, to return to England by such route as might be deemed convenient.

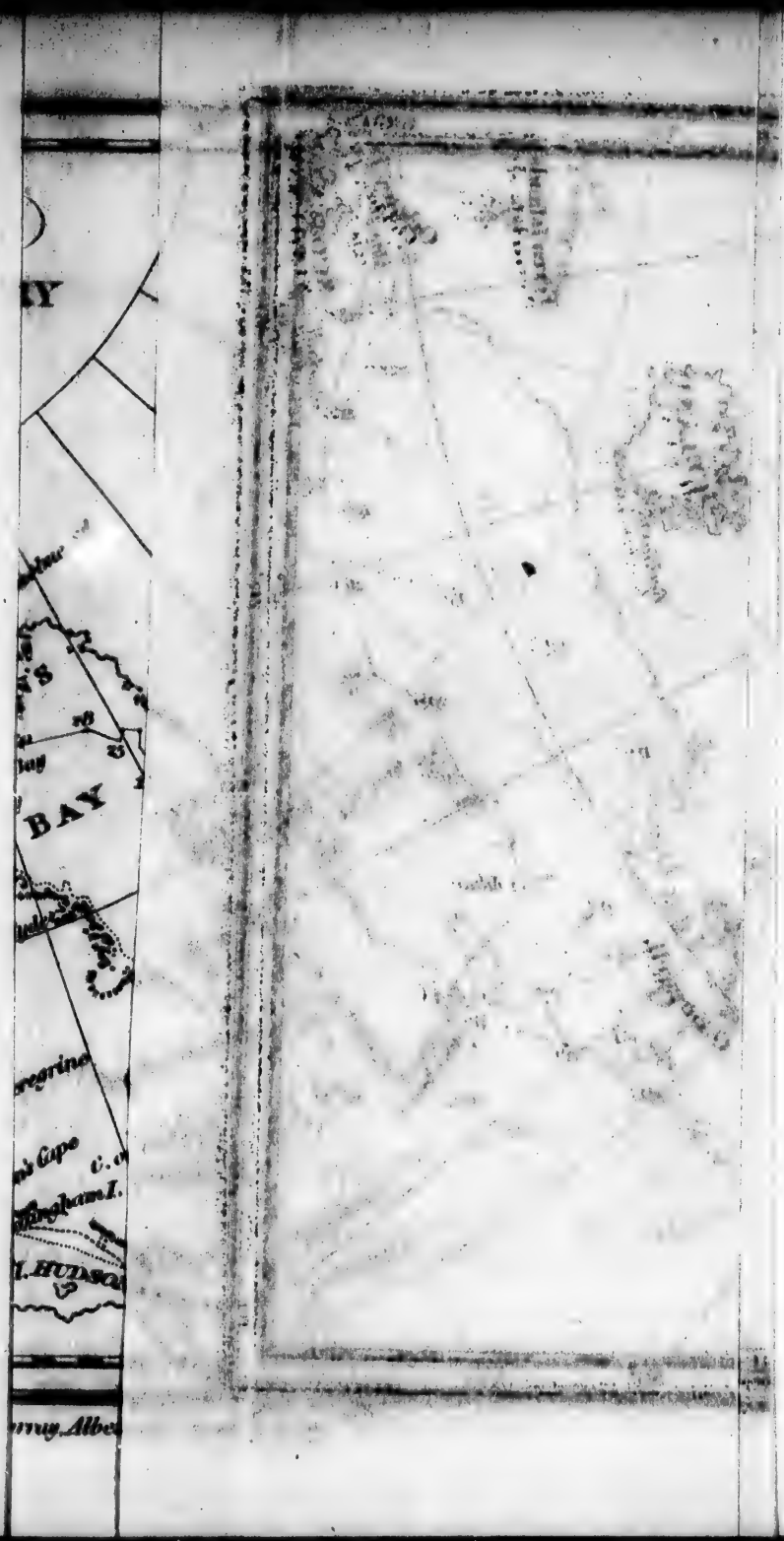
CHAPTER I.

Passage across the Atlantic—Removal of Stores from the Nautilus transport, at the margin of the Ice—Departure of the Nautilus for England—Enter the ice in Hudson's Strait—Perilous situation of the Hecla, and loss of her anchor—Meet with the Hudson's Bay ships—Passage up the Strait, and communication with the natives inhabiting the Northern shores—Pass the Trinity Islands of Fox—Arrival off Southampton Island, where the Researches of the Expedition commence.

THE FURY, HECLA, and NAUTILUS transport were completed for sea towards the latter part of the month of April, and, on the 29th, at ten A.M., the wind being from the eastward, with every appearance of its continuing, the Fury was taken in tow by the Eclipse steam-boat, which vessel had before taken us down the river on a similar occasion. At two P.M., the Fury was moored to the buoy at Northfleet, and the Eclipse returned to Deptford for the other

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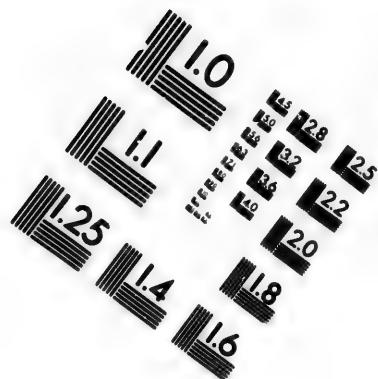
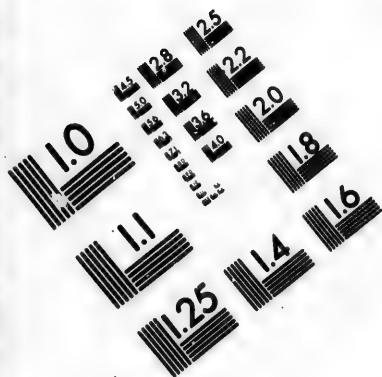
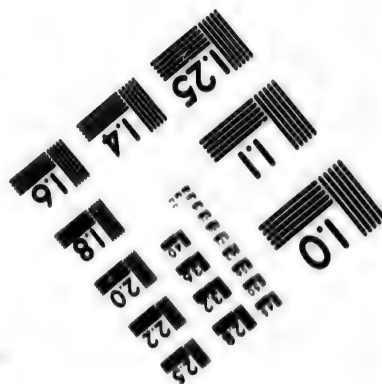
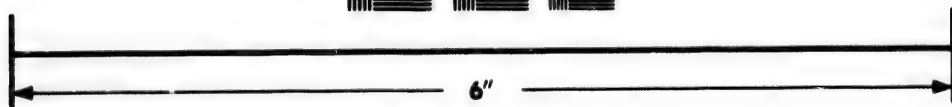
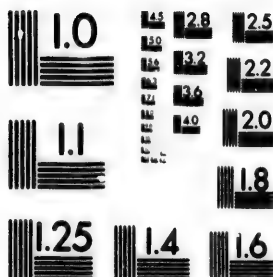


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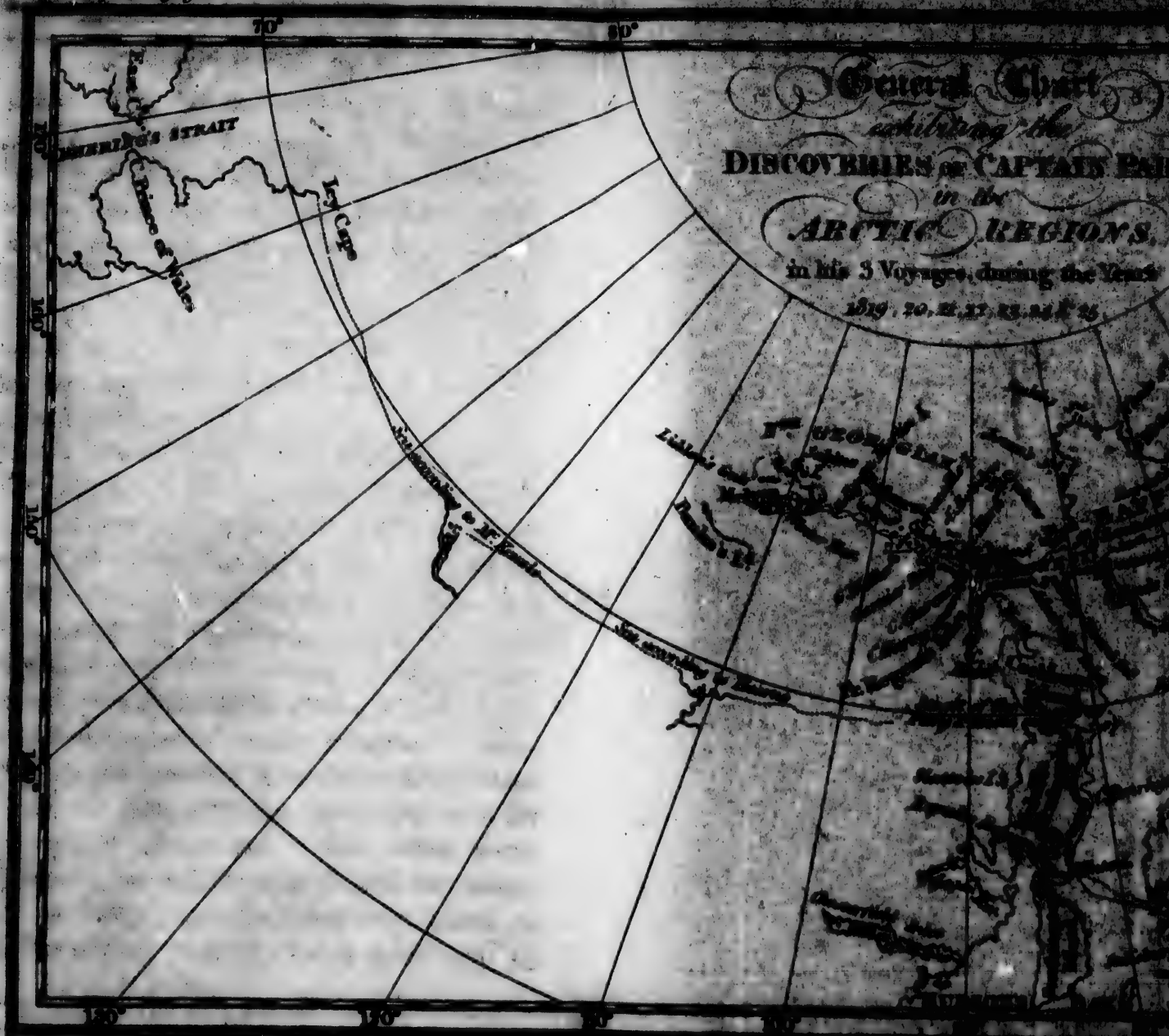
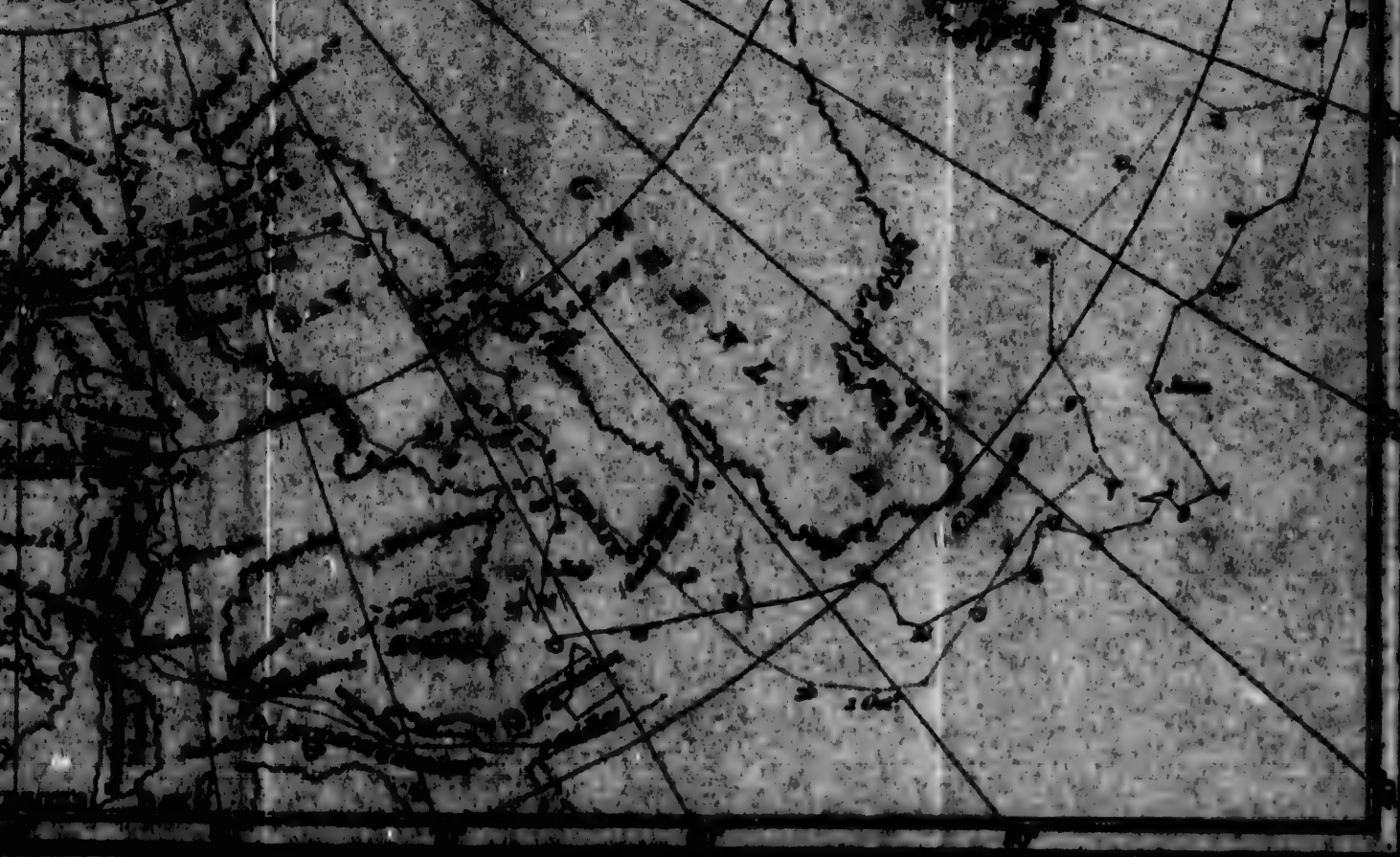


Chart
of the
CAPTAIN PERRY
in the
REGIONS.

during the Years
17, 18, 19, 20.





ships. The Hecla reached the moorings on the following day, and the Nautilus on the 1st of May. The guns and ordnance-stores were here received on board, after which the ships immediately proceeded to the Little Nore, where they anchored on the 3d. I received my final instructions from the Lords Commissioners of the Admiralty on the 4th, and set out for Sheerness on the following day.

On the 7th, the ships were visited by Rear-Admiral Sir John Gore, from whom we had, on this, as on the former occasion, received every attention and assistance, which the greatest personal kindness, and the most lively interest in our success, could suggest. On the same day, the ships' companies received their arrears of river-pay, and three months' wages in advance; after which they provided themselves with a large stock of warm clothing, according to a list previously given out. The crews were, however, so well acquainted with the nature of the service on which they were about to be employed, that they took good care to

provide an abundant supply of everything of that kind.

Previously to leaving the Nore, I furnished Captain Lyon with a complete copy of my Instructions from the Lords Commissioners of the Admiralty, accompanied by an order containing some general regulations; and I also appointed certain places of rendezvous, to ensure the meeting of the three ships at the margin of the ice, in case of unavoidable separation in crossing the Atlantic.

Nothing of consequence happened during our passage across the Atlantic; but, after entering Davis's Straits, we had for several days variable and unsettled weather, the wind blowing principally from the southward, with a heavy swell from the same quarter. On the 14th, we met with the first iceberg, being in lat. $60^{\circ} 48'$, long. $53^{\circ} 13'$.

Having now reached the situation in which I was directed, by my instructions, to clear the Nautilus of our stores, I was desirous immediately to commence this

work, in order to be ready for the opening of the ice in Hudson's Strait, which might be expected to occur in a few days. There being a number of bergs in sight, I determined to anchor the ships to one of them for this purpose, whenever the wind and weather would permit. This was done with difficulty, but the removal of the stores was completed by the evening of the 30th; when, having sent our despatches and letters on board the Nautilus, and made every other arrangement, I gave Lieutenant Scrymgour his instructions to return to England; and at one A.M. on the 1st of July, he parted company, while the Fury and Hecla stood in towards the ice. A whaler, deeply laden, and apparently homeward bound, was at this time in sight to the eastward.

Towards noon we made the ice, being in lat. $62^{\circ} 08' 37''$, long. $62^{\circ} 22' 49''$, and ran along its edge, keeping as much to the westward as the trending of it would allow. It requires a few days to be passed amidst scenes of this nature, to erase, in a certain

degree, the impressions left by more animated landscapes; and not till then, perhaps, does the eye become familiarized, and the mind reconciled, to prospects of utter barrenness and desolation, such as these rugged shores present.

At seven P.M. Tuesday, 3d July, the ice opposed our further progress to the westward, covering the whole sea, as far as the eye could reach in that direction; the ships were, therefore, of necessity hove-to, in order to await some change in our favour. The tide appeared to have been setting to the eastward from noon till six P.M., about which time it turned in the opposite direction, and, soon after we had hove-to, the ships were carried by it into the ice which formed their present impediment, at the rate of more than three miles an hour, and were quickly beset by other pieces of ice drifting in upon them from the eastward. The ice here consisted principally of large, though loose, masses of broken floes, none covering more than a quarter of an acre, and few so much, but having many high hummocks,

and drawing a great deal of water. We counted also above thirty bergs in sight at one time, and observed that many of them were carried about by the tides with great rapidity.

A fresh breeze from the W.S.W. springing up on the morning of the 5th, accompanied by clearer weather, we cast off to try what could be done, and succeeded in pushing the ships in-shore, where we found a 'lane' of tolerably open water, owing to the ebb-tide having set the ice off in a body. As this tide was now a lee one, however, we could with difficulty keep the ships to windward under a press of sail; and, as soon as we had come to the end of the lane, were under the necessity of driving back to the eastward the little distance we had gained. We had now only advanced within five or six miles of the south point of Resolution Island, which, by our observations, lies in lat. $61^{\circ} 20' 40''$, long. $64^{\circ} 55' 15''$.

The wind shifted to the south-eastward in the course of the night, with a strong breeze and heavy rain; and, on the follow-

ing morning, when the ebb-tide opened the ice a little, a considerable swell was admitted from the sea, causing the ships to strike violently and almost constantly on the masses of ice alongside of them. In this situation they continued for several hours so completely beset as to render it impossible to extricate them, and drifting about at random with the tides. The Hecla was, by a different set of the stream, separated five or six miles from the Fury, while both ships were equally hampered.

The effects to be apprehended from exposure to the swell of the main ocean constitute the peculiar danger of first entering the ice about the mouth of Hudson's Strait, which is completely open to the influence of the whole Atlantic. A very inconsiderable quantity of loose ice is sufficient to shelter a ship from the sea, provided it be closely packed; but when the masses are separated by the wind or tide, so as to admit the swell, the concussions soon become too violent for a ship, strengthened in the ordinary way, to withstand for any length of time. On

this account, it is prudent not to enter the ice without a fair prospect of getting seven or eight leagues within the margin. For the same reason, also, when likely to be beset near the sea, it is better to make a ship fast to small than to large pieces, in order to avoid the heavier concussions occasioned by the latter.

On the 13th, both ships' companies were exercised in firing at a target on the ice, as well as for the purpose of giving them occupation, as of finding out who were our best shots. On the same afternoon, we saw two ships beset to the northward, which we supposed to be those bound to the Hudson's Bay factories. They were joined the next day by a third ship, which afterwards proved to be, as we conjectured, the Lord Wellington, having on board settlers for the Red River.

The ice being rather less close on the morning of the 16th, we made sail to the westward, at 7.45 A. M., and continued 'boring' in that situation the whole day, which enabled us to join the three strange ships. They proved to be, as we had sup-

posed, the Prince of Wales, Eddystone, and Lord Wellington, bound to Hudson's Bay. I sent a boat to the former, to request Mr. Davidson, the master, to come on board, which he immediately did. From him we learned that the Lord Wellington, having on board one hundred and sixty settlers for the Red River, principally foreigners, of both sexes and every age, had now been twenty days among the ice, and had been drifted about in various directions at no small risk to the ship. Mr. Davidson considered that we had arrived here rather too early for advancing to the westward, and strongly insisted on the necessity of first getting to the northward, or in-shore, before we could hope to make any progress;—a measure, the expediency of which is well known to all those accustomed to the navigation of icy seas. By the Prince of Wales we sent our last letters for our friends in England; and I took the same opportunity to acquaint the Secretary of the Admiralty with the proceedings of the Expedition up to this date.

Proceeding slowly to the westward, we had reached at noon on the 21st the lat. of $61^{\circ} 50' 13''$, long., by chronometers, $67^{\circ} 07' 35''$. In this situation several islands were in sight to the northward and westward, and, among the rest, a remarkable one called Saddle-back on account of its shape. The wind backing to the westward in the afternoon, we anchored the ships to the largest floe piece we could find, there not being room to beat to windward. While thus employed we heard voices in-shore, which we soon knew to be those of some Esquimaux coming off to us. Shortly after, several canoes made their appearance; and seventeen of these people came alongside the Fury. Having hauled their *kayaks* (canoes) upon the floe, they began to barter their commodities, consisting of seal and whale blubber, whale-bone, spears, lines, and the skins of the seal, bear, fox, deer, and dog. Our first endeavour was to procure as much oil as possible, of which, as we had been informed by the Hudson's Bay ships, several tons are thus almost annually

obtained from these people. We soon found that they had been well accustomed to bargain-making, for it was with some difficulty that we could prevail upon them to sell the oil for anything of reasonable value. They frequently gave us to understand that they wanted saws and harpoons in exchange for it, and as these were articles which we could not spare, it was not without trouble that we obtained, in the course of the evening, two barrels of blubber in exchange for several knives, large nails, and pieces of iron hoop, which was certainly a dear bargain on our side. If they saw more than one of these at a time, they would try hard to get the whole for the commodity they were offering, though, when we had for some time persisted in refusing, they would not only accept what was offered, but jump for joy at having obtained it. They always licked the articles given them, and in one instance only did we notice any inclination to break the contract after this process had been gone through.

Shortly after these men had arrived, a

large *oomiak*, or woman's boat, made its appearance, containing six or seven females and four men, the oldest of the latter, as seemed usual among them, steering the boat with a rude oar of wood. The women could not be induced to land upon the floe, but held up skins and small narrow strips of well-tanned leather to exchange, loudly vociferating *pilletay* (give me) the whole time. There were in this boat several skins of oil and blubber, which I tried hard to purchase, but nothing could induce the old man to part with more than one skin of it; for what reason I could not tell, except that he hoped, by perseverance, to obtain a higher price. On my desiring our men to hand out a second skin of oil, as an equivalent for which I put into the old man's hand a second knife, he resisted most vehemently, pushing our men aside in the boat with a violence I have never seen the Esquimaux use on any other occasion. One of the younger men then came forward and was lifting up the stretcher of their boat to strike our people, who were good-humour-

edly laughing at the old man's violence; when I thought it high time to interpose, and, raising a boat-hook over the head of the Esquimaux, as if about to strike them, soon brought them into a cooler mood; after which, to prevent further altercation, I ordered our people out of the boat. We had, by this time, succeeded in purchasing all the oil brought by the first canoes, and as the old fellow, who was commanding officer of the *oomiak*, obstinately persisted in his refusal to sell his, I ordered him away, when he immediately rowed to the *Hecla*, and, as I was afterwards informed by Captain Lyon, sold his oil for less than he might have obtained at first. Four other *oomiaks* afterwards came from the shore, from which we were distant five or six miles. Each of these contained from fourteen to twenty-six persons, the majority being females and young children. Upon the whole, not less than one hundred of the natives visited the ships in the course of the evening.

These people possessed in an eminent

degree the disposition to steal all they could lay their hands on, which has almost universally been imputed to every tribe of Esquimaux hitherto visited by Europeans. They tried, more than once, the art of picking our pockets, and were as bold and unembarrassed as ever, immediately after detection. It is impossible to describe the horribly disgusting manner in which they sat down, as soon as they felt hungry, to eat their raw blubber, and to suck the oil remaining on the skins we had just emptied, the very smell of which, as well as the appearance, was to us almost insufferable. The disgust which our seamen could not help expressing at this sight seemed to create in the Esquimaux the most malicious amusement; and when our people turned away literally unable to bear the sight without being sick, they would, as a good joke among themselves, run after them, holding out a piece of blubber or raw seal's flesh, dripping with oil and filth, as if inviting them to partake of it. Both the men and women were guilty of still more disgusting

indecencies, which seemed to afford them amazing diversion. A worse trait even than all these was displayed by two women alongside the Hecla, who, in a manner too unequivocal to be misunderstood, offered to barter their children for some article of trifling value, beginning very deliberately to strip them of their clothes, which they did not choose to consider as included in the intended bargain.

Upon the whole, it was impossible for us not to receive a very unfavourable impression of the general behaviour, and moral character, of the natives of this part of Hudson's Strait, who seem to have acquired, by an annual intercourse with our ships for nearly a hundred years, many of the vices which unhappily attend a first intercourse with the civilized world, without having imbibed any of the virtues or refinements which adorn and render it happy.

Early on the morning of the 22d, a number of canoes repeated their visit to us, the Esquimaux having hauled them upon a piece of ice to lodge for the night. In the

forenoon, an *oomiak* also came from the shore, and as no intercourse with them was permitted till after divine service, they became very impatient to barter their commodities, and walked on the ice alongside the ship, with a number of trifling things in their hands, vociferating 'pilletay' to such a degree that we could hardly hear ourselves speak. Some more oil was obtained in exchange for pieces of iron hoop, and, at a quarter before noon, the wind coming more to the southward and the ice being somewhat less close than before, we cast off and made sail up the strait.

The wind and ice combined to favour us more and more as we proceeded, the former both in strength and direction, and the latter by opening into loose streams, so that, for the first time since we entered Hudson's Strait, we were now enabled to set all the studding-sails, with some prospect of deriving advantage from them. The Hudson's Bay ships remained at anchor some time after we made sail, and in the course of the evening we finally lost sight of them.

From this circumstance, as well as from the unimpeded progress we had just begun to make to the westward, it was now only that we considered our voyage as having fairly commenced.

In the afternoon of the 24th, having a contrary wind, against which little progress could be made, I landed, at half-past four, upon the easternmost of the Savage Islands, accompanied by several of the officers, and was shortly after joined by Captain Lyon. After making the usual observations for the longitude and variation, we ascended to the highest part of the island, which is from six to eight hundred feet above the sea, in order to take an eye-sketch and angles of the surrounding lands. We here counted eleven islands, which may properly be considered as belonging to the group called the Upper Savage Islands, occupying nearly the whole space between that on which we stood, the largest and highest of the whole, and the western shore. The south point of this island is comparatively low, and appeared to have shoal water off it to the distance of half

a mile. Captain Lyon here noticed the remains of some Esquimaux habitations, consisting, as usual, of small rude circles of rough stones *; and one human skull was also found there. We met with a few pieces of drift fir-wood, some of which having been sawed and others chipped, shewed that these people were not in want of wood, since they could thus afford to leave it behind them in no inconsiderable quantity.

As soon as we returned on board, all sail was made to windward, the breeze being still from the westward, and the sea almost free from ice. On the 25th we had fog occasionally, which, however, cleared away in the afternoon, and at eight P.M., in stretching to the southward, we saw the hills on the Labrador coast, from which our estimated distance was eight leagues.

* These circles are, in the Narrative of the former Voyage, erroneously called 'huts,' as we then took them to be the remains of the winter habitations of the Esquimaux; whereas, they are exclusively used for extending the skins composing their summer tents.

We continued, on the 1st of August, to beat to the westward, between Nottingham Island and the North Shore, the distance between which is about four leagues, and the latter fringed with numerous islands. In the course of the morning, several canoes and one *oomiak* came off from the mainland, containing about twenty persons, more than half of whom were women and children. They brought a little oil, some skin dresses, and tusks of the walrus, which they were desirous of exchanging for any trifle we chose to give them. They had, also, a number of toys of various kinds, such as canoes with their paddles, spears, and bows and arrows, all on a very large scale. Many of the jackets of these people, and particularly those of the females, were lined with the skins of birds, having the feathers inside; and they had, also, in the boat several other skins in a prepared state, taken from the throat of the *colymbus glacialis*, which splendid bird, though we had twice found its skin in possession of the Esquimaux, we had yet not met with ourselves.

After a run of forty miles, during the night, almost without seeing any ice, we came, on the morning of the 2d, to a body of it so closely 'packed' that we could make no further progress, while the masses on the outer edge were moving so rapidly in various directions, as to occasion us much trouble and many violent blows before we could get clear of them. After standing several miles to the northward, along the edge of the ice, without meeting with an opening, it began to lead us so much to the eastward that we tacked and stood back to the W.S.W., to try what could be done by patience and perseverance in that quarter.

The Expedition being now about to enter upon ground not hitherto explored, it became necessary for me to decide upon the route it would be most advantageous to pursue, for the accomplishment of the principal objects pointed out in my instructions.

CHAPTER II.

Review of the geographical Information obtained by the Researches of former Navigators on the Coast of the American Continent, in the neighbourhood of Wager River—Discover and enter the Duke of York's Bay, supposing it to be a Passage into the Sea called the Welcome—Leave the Duke of York's Bay, and proceed to the North-Westward—Passage of the Frozen Strait and arrival in Repulse Bay—Continuity of Land there—Observations on Shore—Remarks concerning the Geography, Tides, and Natural History of this part of the Continental Coast.

AFTER the most anxious consideration, I came to the resolution of attempting the direct passage of the Frozen Strait ; though, I confess, not without some apprehension of the risk I was incurring, and of the serious loss of time which, in case of failure either from the non-existence of the strait or from the insuperable obstacles which its

name implies, would thus be inevitably occasioned to the Expedition.

After contending with the ice for several days, towards the evening of the 11th, we succeeded in getting in with the northern land, and at twenty minutes after nine P.M., being close to a small rock or islet, which lies about a mile and a half off the shore, I landed upon it, accompanied by a large party of officers, who volunteered to man the boat. We found it to be about one-fifth of a mile across, consisting entirely of gneiss-rock, rounded on the surface, and with a little moss and a very few other plants growing in crevices where water had lodged. We saw the tracks of deer upon some moist sand, and a rude circle of stones, being probably the remains of an Esquimaux summer habitation. At eleven P.M., soon after we returned on board, a fresh gale suddenly came on from the north-west, obliging us to make the ships fast to the largest floe-piece that happened to be near us, as the best means of holding our ground.

On the morning of the 12th, the good effects of the north-westerly gale were very apparent; for, although we had drifted two or three leagues back to the eastward, the main body of ice, consisting mostly of pieces smaller than that to which we were attached, had gone much faster, leaving a large space of clear water for us to work in. It may here be observed that, in the course of our endeavours to get to the westward, as well in this voyage, as in that of 1819-20, a westerly wind, though blowing directly against us, was always found ultimately to be the most favourable to our purpose, as it brings away large bodies of ice from that quarter, and consequently leaves a considerable interval of open water. The most precious opportunity to seize, therefore, in this navigation, is at the springing up of an easterly breeze after a gale from the opposite quarter, at which time, if a ship be fortunately unhampered, considerable progress may generally be made. Not a moment of this favourable interval must be lost, as the ice invariably closes again in a few hours.

after a change of wind, which is besides usually attended by thick water.

The gale having somewhat moderated at noon, we cast off and made sail; and, after carrying a press of canvass during the day, had made considerable progress by the evening, when the ice becoming close obliged us to make fast: in doing which the Hecla narrowly escaped a heavy 'nip,' by the sudden meeting of two floes. The weather was beautifully clear, giving us a fine view of the land, which now began to excite in us more and more interest, almost at every step of our progress. A headland, bearing from us S. 87° W., and named, by Mr. Hooper's desire, CAPE WELSFORD, appeared very decidedly to form the northern termination of Southampton Island, leaving an opening of a league or two in width, but broken by two or three islands between it and some high land to the northward. This land, however, did not appear to join that which we had lately left to the north-east of us, there being between them a very wide opening in

which nothing but a sea encumbered with ice was visible from the mast-head. The accounts given by Captain Middleton of the latitude of the western entrance of the Frozen Strait are so confused, and even contradictory, that the present appearance of the land perplexed me extremely in deciding whether or not we had arrived at the opposite end of the opening to which he had given that name. That immediately before us to the westward, though it agreed in latitude within five or six miles with the southernmost parallel he has assigned to it, appeared much too narrow to answer his description of the passage we were in search of. Upon the whole, however, I thought it most probable that this was the strait in question; and as, at all events, the opening between Southampton Island and the land to the northward of it, in whatever latitude it might be found and whether wide or narrow, was the passage through which it was our present object to penetrate into Repulse Bay, I decided on using our utmost exertions to push through the narrow strait now before us.

The wind moderating in the evening, and the ice after sunset once more opening, enabled us to make another mile or two to the westward, after which we lay-to for the night. A great number of narwhals were playing about the ship during the night, but they were, as usual, so wary, that our boats could not approach them. We remarked that scarcely in any part of the polar regions previously visited had we seen fewer birds than for some days past; a solitary glaucous gull, a hawk, and a boatswain, being all that had been noticed. The moon, in rising this evening, was curiously distorted by refraction into the irregular shape of a shrivelled orange.

On the morning of the 13th we observed something very like smoke rising from about Cape Welsford, which, being confined to one spot, was thought likely to be occasioned by the fires of natives. Nothing could exceed the fineness of the weather about this time; the climate was, indeed, altogether so different from that to which we had before been accustomed in the icy

seas, as to be a matter of constant remark. The days were temperate and clear, and the nights not cold, though a very thin plate of ice was usually formed upon the surface of the sea in sheltered places, and in the pools of water upon the floes. After sunset we descried land, appearing very distant, through the middle of the strait, which we considered to be that on the American side of the Welcome. At this time, also, we observed some ice in the centre of the strait, heavier than that which covered the rest of the sea, and apparently aground in shoal water, as afterwards proved to be the case.

On the 15th we were within a league of a remarkable headland on Southampton Island, which I named CAPE BYLOT, as being probably the westernmost land seen by that navigator in 1615. In the meantime, the Hecla, still continuing very closely beset, had in spite of every exertion drifted back with the ice several miles to the northward and eastward, so that in the course of the evening, we lost sight of her altogether.

This latter circumstance was, however, owing in great measure to the extraordinary refraction upon the horizon, making terrestrial objects at the distance of six or seven miles appear flattened down or depressed, as well as otherwise much deformed.

At six P.M., having beat up within five or six miles of the entrance of the strait, and being anxious to sound the channel, which appeared narrow but without any ice in it to offer us obstruction, I left the ship in the gig, accompanied by Mr. Ross, for this purpose. As it was not possible to complete the examination of the channel in time to beat the ship through till the morning, I made the appointed signal for the *Fury* to stand off and on during the few hours of dusk, and determined on taking up our quarters on shore at Cape Welsford, in order to recommence our examination as early as possible in the morning.

The part of Southampton Island on which we landed is about a thousand feet high, and composed of gneiss. Every here and there along the shore, between the projecting

points of rocks, is a small cove or bay, having a beach composed of small pieces of limestone, which make the water almost as white as milk. Landing in one of these coves, we carried the boat above high-water mark; and, making a tent of her sail, lay very comfortably during the night. When the boat first touched the beach, we observed an innumerable quantity of the little fish called sillocks, swimming about, several of which were killed by the boat-hooks or taken in the hand. A great number of white whales, seals, and narwhals, were also playing about near the beach during the night. The white whales were the most numerous; the noise these animals made resembled a hoarse low-toned barking more than any other to which I can compare it; and we remarked that their colour was whiter than any we had before seen.

As soon as it was daylight, Mr. Ross and myself ascended the hill above our sleeping-place, from whence we could perceive land stretching round to the westward and northward, so as apparently to leave no opening

in that quarter. We were much surprised at the low and yellowish appearance of this land, both of which circumstances we were at a loss to reconcile with Captain Middleton's description of the bold shore of the American continent, on the western side of the Welcome about this latitude. It was pleasing, however, to observe a large expanse of sea wholly unencumbered with ice, in the direction we were now about to pursue; and we, therefore, hastened to the beach to continue the survey of the strait, that no time might be lost in taking advantage of this favourable circumstance. On our return to the beach we found the boat's crew amusing themselves in catching sillocks, of which they had discovered great numbers left by the tide in the pools upon the rocks, and had already caught more than a large bucket full. They proved most excellent eating, and, although we were not badly off for fresh provisions, were considered by us a very agreeable variety. Every possible care was taken in observing the time and direction of the tides in this place,

that phenomenon having now assumed a more than ordinary interest.

After completing our observations and examination of the channel, we reached the ship by eight A.M., the *Fury* having, with great attention, been kept close off the entrance of the strait during the night. The *Hecla* had at this time just hove in sight under a press of sail to the eastward, having at length, with much difficulty, succeeded in getting into clear water. While engaged in beating through the channel with a considerable tide against us, I despatched Mr. Crozier to bring on board sand for the decks, and provided him also with nets for catching sillocks, of which he procured enough to serve the messes of the officers and ship's company for two dinners.

At half-past nine on the 17th, we got under way, and stood under all sail to the N.N.E., where alone, as on the preceding evening, there appeared the smallest chance of finding any outlet.

Having determined the continuity of land all round this magnificent bay, possessing

so many advantages that would render it invaluable in a more temperate climate, the officers honoured it with the name of the **DUKE OF YORK'S BAY**, in consequence of the expedition having first entered it on the birth-day of his Royal Highness.

It being now evident that the inlet into which, in the course of our endeavours to penetrate to the westward, we had unavoidably been led, would afford us no passage in that direction, I gave orders for weighing at the turn of tide; being determined at once to run back through the narrow channel by which we had entered, and to push to the northward without delay, in search of some more favourable opening.

A breeze from the S.W., sprung up at two P.M. on the 19th. We made all sail for the channel, through which we passed at half-past four with a strong breeze. After dark it began to blow stronger with rain and some sea out of the bay, obliging us to carry a press of canvass, and to keep all hands on deck, to enable us to weather the ice under our lee.

After midnight the weather moderated a little, and the wind drew more to the southward, giving us some shelter under the lee of the land till daylight, when we found that the breeze had done us all the service we had anticipated, by opening a wide passage between the land and the ice to the northward. Not a moment was lost in availing ourselves of this opportunity, and we ran rapidly, and almost without obstruction, along the land, passing numerous islands and bays with which this shore abounds. Piles of stones were seen, as usual, in various places along the coast. The eastern shore of this new strait still appeared continuous, and both lands began to trend more to the westward.

Passage Island, which is blackish in its appearance, has a small rocky islet, of a yellow colour, on its eastern side, with which we afterwards, as unexpectedly as unwillingly, became better acquainted. There are also two or three small islands, lying nearly abreast of it, off the Southampton Island shore; and, as we proceeded, several others

were brought in sight, lying in a bay near the west extreme, which we passed in the evening, having before us a sea entirely clear of ice, and, we were willing to hope, of land also. Hazy weather, however, such as had prevailed during the greater part of the day, with occasional rain, is very favourable to such hopes, and often, therefore, brings much disappointment. At seven o'clock we plainly distinguished land, with a fog-bank hanging over it, to the westward, and, as far as the thickness of the weather would permit us to see, leaving no opening before us, except for about two points in the north-western quarter. As the nights became dark for several hours at this season, and we were wholly unacquainted with the land beyond us, the boats were despatched to look for anchorage under the southern shore, where, however, the ground proved so irregular, and the bottom so rocky, that I determined to keep under way during the night. As soon as the boats were hoisted up, we stood to the westward under easy sail, and deepened the water

gradually to one hundred and five fathoms, on a hard bottom. Our uncertainty respecting the true situation of the Frozen Strait, together with the want of observations during the day, left us, at this time, in doubt whether we had already penetrated through that passage, or had still to encounter the difficulties which the former accounts of it had led us to anticipate.

The wind was squally, with dark cloudy weather during the night, and a calm succeeded on the morning of the 21st, with fog and rain.

We stood up the bay towards day-light, and at seven A.M. I left the *Fury*, accompanied by a large party of officers, having by signal requested Captain Lyon to join us. At the same time I directed another boat to be despatched from the *Hecla*, under the command of Lieutenant Palmer, to row round a small bight which appeared in the north-west corner of the bay, where alone, from one or two points overlapping each other, the slightest doubt of the continuity of land could exist. We landed upon a

point just to the eastward of this bight, in which neighbourhood are several little islands and coves, probably affording good anchorage, but which the more immediate objects we had in view did not permit us to examine. Upon the point we found the remains of no less than sixty Esquimaux habitations, consisting of stones laid one over the other in very regular circles, eight or nine feet in diameter, besides nearly a hundred other rude, though certainly artificial structures, some of which had been fire-places, others store-houses, and the rest tolerably-built walls four or five feet high, placed two and two, and generally eight or nine feet apart, which these people use for their canoes, as well as to keep the dogs from gnawing them. A great many circles of stones were also seen more inland. About three miles to the N.N.W. of our landing-place, our people reported having seen fifteen others of the same kind, and what they took to be a burying-ground, consisting of nine or ten heaps of large stones, of three feet in diameter, and as many in height. Under

these were found a variety of little implements, such as arrow or spear heads tipped with stone or iron, arrows, small models of canoes and paddles, some rough pieces of bone and wood, and one or two strips of asbestos, which, as Crantz informs us, is used by the natives of Greenland for the wick of their lamps, and for applying hot, in certain diseases, to the afflicted part*. Under these articles were found smaller stones, placed as a pavement, six or seven feet in length, which, in the part not concealed by the larger stones, was covered with earth. Our men had not the curiosity or inclination to dig any deeper, but a human skull was found near the spot. Our people also reported that, several miles inland of this, they observed stones set up as marks, many of which we also met with in the neighbourhood of the point. Of these marks, which occur so abundantly in every part of the American coast that we visited, we could

* Crantz, I. 236. The Esquimaux on this part of the coast use it only as sticks for trimming their lamps.

not then conjecture the probable use, but we afterwards learned that the Esquimaux set them up to guide them in travelling from place to place, when a covering of snow renders it difficult to distinguish one spot from another. We found among the stones some seals' bones, with the flesh still upon them, which seemed to indicate that the natives had occupied this station during a part of the same season; and judging from the number of circles collected in this place, and still more from our subsequent knowledge of these people, it is probable that not less than one hundred and twenty persons had taken up their residence here at the same time.

The latitude observed on shore was $66^{\circ} 30' 58''$, being the first observation we had yet obtained so near the Arctic Circle, but far to the southward of that given by Captain Middleton*. The longitude, by chro-

* The difference amounts to about twenty miles. It is but justice, however, to the memory of Captain Middleton to add, that several miles of this error may have been occasioned by the imperfection of nautical

nometers, was $86^{\circ} 30' 20''$; the dip of the magnetic needle, $88^{\circ} 07' 28''$; and the variation $48^{\circ} 32' 57''$ westerly; being only a degree and a half less than that observed by Middleton in 1742.

From our place of observation on shore we had a distinct view of Cape Hope, which is high and bluff, as well as of the land to the eastward of it, running towards Beach Point, which becomes lower, as described by Captain Middleton. Indeed the whole account he has given of this bay, with the exception of its geographical position, is in general very accurate, particularly in the appearance of the lands, their relative situation, and in the nature and depth of the soundings. With respect to the Frozen Strait, through which we passed with less difficulty than usual in the navigation of

instruments in his day, combined with the unavoidable inaccuracy of observations made by the horizon of the sea, when incumbered with much ice. On this latter account, as well as from the extraordinary terrestrial refraction, no observation can be here depended upon, unless made with an artificial horizon.

those seas,—thus, for the first time, determining by actual examination the insularity of that portion of land which by anticipation has long been called Southampton Island,—there can be little doubt that the account Middleton has given of its appearance, as seen from Cape Frigid, is in the main a faithful one. In that view it would seem to be ‘almost full of long small islands;’ nor is there any improbability of its having been, at the time of his visit, covered with ice, which might appear to be ‘fast to both shores,’ presenting to a person so situated a hopeless prospect of penetrating through it to the northward. Above all, the accuracy of Captain Middleton is manifest upon the point most strenuously argued against him by Mr. Dobbs; for our subsequent experience has not left the smallest doubt of Repulse Bay and the northern part of the Welcome being filled by a rapid tide flowing into it from the eastward through the Frozen Strait.

From twenty-two minutes after seven A.M. till twelve minutes past one P.M., when we

left the shore, the tide was constantly ebbing, and fell seven feet three inches in that time, from which I concluded the time of high water this morning to have been about ten minutes past seven, and a quarter after eleven on full and change days.

Soon after we got on board, Lieutenant Palmer returned from the examination of the north-western bight, which he named GIBSON'S COVE, and of which he delivered to me, together with his report, a sketch showing its soundings and general outline, and, what alone was very important, the continuity of land all round it. Lieutenant Palmer's report stated that he had rowed close in-shore all round the bay, and had found it 'terminate in a small cove, having a deep ravine running into it on the western side.' Thus was the question settled as to the continuity of land round Repulse Bay, and the doubts and conjectures which had so long been entertained respecting it, set at rest for ever.

CHAPTER III.

Return to the Eastward through the Frozen Strait
—Discovery of Hurd Channel—Examined in a
Boat—Loss of the Fury's Anchor—Providential
Escape of the Fury from Shipwreck—Anchor in
Duckett Cove—Further Examination of the Coast
by Boats and Walking-parties—Ships proceed
through Hurd Channel—Are drifted by the Ice
back to Southampton Island—Unobstructed run
to the entrance of a large Inlet leading to the
North-westward—Ships made fast by Hawasers to
the Rocks—Further Examination of the Inlet
commenced in the Boats.

HAVING now satisfactorily determined the non-existence of a passage to the westward through Repulse Bay, to which point I was particularly directed in my instructions, and which, for the reasons detailed in the commencement of the preceding Chapter, I had confidently considered as part of the American continent, it now remained for me, in

compliance with my orders, to 'keep along the line of this coast to the northward, always examining every bend or inlet which might appear likely to afford a practicable passage to the westward.' It was here, indeed, that our voyage, as regarded its main object, may be said to have commenced, and we could not but congratulate ourselves on having reached this point so early, and especially at having passed, almost without impediment, the strait to which, on nearly the same day * seventy-nine years before, so forbidding a name had been applied.

As soon as the boats were hoisted up, all sail was made along shore to the eastward, the wind being light off the northern land; and we could plainly perceive the low shore which runs to the southward and eastward of Cape Hope, as far as the latitude of $66^{\circ} 14'$, from whence the researches of the present expedition on the coast of the American continent are, therefore, to be considered as commencing. After clearing Repulse Bay

* Middleton discovered the Frozen Strait on the 20th August, 1742, according to the New Style.

we came to some ice that the wind was now drifting off the northern shore, which had before been loaded with it by a breeze from the opposite quarter, so that we were once more fortunate in finding a tolerably clear sea.

All sail was made at daylight on the 23d along the northern shore of the Frozen Strait, which here continues about the same height as that of Repulse Bay, and was at this time quite free from snow. At nine A.M. the weather became squally with thick snow, which rendered great caution necessary in running. Soon after noon we perceived, during the intervals of clearer weather which occasionally took place, that the land we were approaching was somewhat broken, and in one place appeared to consist only of islands, between which no land was visible at the back. There was something in the appearance of this part of the coast which held out so favourable a prospect of a direct passage to the northward, that I determined more closely to examine it. Having beat up to the mouth of an

opening which, the nearer we approached, assumed a more and more favourable appearance, we found that a body of ice occupied the greater part of the channel, rendering it impracticable then to enter it either with the ships or the boats. The only mode left, therefore, of examining it without loss of time, was to despatch a party equipped for travelling by land, to ascertain enough of its extent and communications to enable me to decide as to our farther progress. As, however, in their present situation, I did not feel myself justified in leaving the ships, I requested Captain Lyon to undertake this service. He was accompanied by Mr. Bushnan and two seamen from each ship, and was furnished with a tent, blankets, and four days' provisions. In the mean time, as there was very little ice near us except what was in the mouth of the inlet, and that appeared to be coming quickly out with the wind, I thought the safest way for the ships, as well as to secure the quick return of Captain Lyon and his party, would be to anchor, which we did in thirteen fa-

thoms, upon a hard bottom, at the distance of one mile from the shore. As soon as the anchors were dropped, we found that the tide came out of the inlet, and then set to the westward, at the rate of a mile an hour; and as we had reason to believe, as indeed it afterwards proved, that this was the flood-tide, our hopes of here finding a passage to the northward, so as at least to save us the necessity of pursuing the more circuitous route round the lands we had left to the southward and eastward, received great encouragement.

Captain Lyon on his return, at the end of two days, reported that he had landed on an island, which he called BUSHNAN'S ISLAND, had then crossed a strait, to which afterwards the name of HURD'S CHANNEL was given, and landed on a steep point called by him CAPE MONTAGU. From hence his party proceeded to a high and remarkable hill, called BROOK'S BLUFF: following the strait to the northward, they passed the remains of many Esquimaux habitations, and though their short journey had been

unsatisfactory on account of the badness of the weather, there was still sufficient to cause the most lively interest, and give strong hopes of the existence of some passage to the north-east of the small inlet they had examined.

A thick fog coming on immediately after Captain Lyon's arrival, we could not but consider ourselves fortunate in having picked our party up so opportunely. The *Hecla* having in the course of the day been separated from us seven or eight miles, in consequence of the ice carrying her to the westward, Captain Lyon remained on board the *Fury* during the night, when the plan of our future operations was determined on. The result of the late examination, imperfect as it necessarily was on account of the extremely unfavourable state of the weather, was sufficient to excite the strongest belief that some communication, not very indirect, must exist between the Frozen Strait and a sea to the northward and eastward of it; and it was determined, therefore, to leave nothing undone to ascertain and follow up this communication.

At eight P.M. having shoaled the water from sixty to forty, and then to thirty-two fathoms, and the weather still continuing extremely thick, I suspected that the tide was taking us too close to Passage Island, which was the nearest land when the fog came on. As the water seemed tolerably clear for a few hundred yards, which was the extent of our view, I ordered the ship to be got under sail, in order to be in greater readiness for acting as circumstances might require. The ice, however, once more became so thick about us, that, with the light wind then blowing, it was found impracticable to force the ship through it. While we were thus employed the fog suddenly cleared away, and we found ourselves within three-quarters of a mile of the east end of the island. A large space of open water was at this time not more than a quarter of a mile distant from us in the opposite direction, but before the ship could be moved by warps or by any other means within our power, the tide was observed to be setting her directly between the island and the little

yellow-looking rock I have before-mentioned as lying on its eastern side. Seeing that every exertion of ours was fruitless to prevent driving with the tide, which was setting at about the rate of a mile and a half an hour, it became expedient to relinquish that attempt, and to endeavour only to keep the ship as nearly as possible in mid-channel. The anchors were kept ready to drop in an instant should the ship drive into shoal water ; for had we grounded, and the heavy masses of ice continued to drive upon us, little less than the total destruction of the ship was to be apprehended. The natural direction of the stream, however, effected for us that which, hampered as we were, our own exertions must have failed in accomplishing ; the ship drove through, at the distance of one hundred yards from the rock and about one hundred and forty from Passage Island, having no less than twelve fathoms ; and soon after deepened the water to thirty-five and forty, and then to no bottom with ninety.

After this providential escape, we lay-to

within the island, in order to drift to the northward and westward of it with the flood-tide, which runs stronger here than in any other part of the Frozen Strait. The night was fine but extremely dark, so that after ten o'clock we could not distinguish where the land lay, and the compasses could not be depended on. After an ineffectual attempt to push through the ice towards the middle of the Strait, in order to avoid the danger of being entangled among the numerous islands lying off this shore, we were literally obliged to let the ship take her chance, keeping the lead going and the anchors in readiness.

I have never yet been able to conjecture on which side of the island the Fury was afterwards drifted out. The soundings, however, continued deep, and, at day-light on the 26th, after a most anxious night, we found ourselves about the middle of the Strait, and as usual drifted by the tide some distance to the northward and westward. A breeze which at this time sprung up from that quarter enabled us nearly to fetch the

western inlet, where we now proposed to search for an anchorage. The Hecla having got clear of the ice the preceding evening, and narrowly escaped an adventure similar to that which we had experienced, rejoined us early in the morning, when Captain Lyon returned to her to prepare a boat for his intended excursion. We then stood in under all sail for the land, and at eleven A.M. Captain Lyon left the Hecla, while the ships tacked off and on to await his return. The day was fine and clear; and as the ice occasioned us no disturbance, we were enabled to give the people several hours' rest, of which, from the exertions of the preceding night, they stood much in need. At nine P.M. Captain Lyon returned, acquainting me that he had met with a small bay having no stream of tide, and being at present clear of ice, he thought it might answer our purpose, but he wished me to see it before the ships were taken in.

We continued lying to, therefore, for the rest of the night; and at five A.M. on the 27th, I left the Fury, taking with me Mr.

Bushman to point out the place in question. On reaching the bay, we found that the ice had during the night almost entirely filled it; but on ascending a hill we observed another and apparently a secure cove, on the opposite or north shore, to which we immediately proceeded. Having placed a flag on a mass of grounded ice, near a shoal point at the entrance, and sounded every part of the cove, which was found to afford good anchorage, we rowed out to the ships.

Returning on board at eleven A.M., I found that the state of the weather had prevented any observation of the eclipse of the sun, which took place this morning; and Mr. Fisher could only just perceive the penumbra passing over it. Having despatched Mr. Bushman to the Hecla as a pilot, all sail was immediately made for the inlet, as I was anxious to save the flood-tide in case of the ships grounding. A strong breeze was now blowing from the north-west, which carried the Fury through the water at the rate of seven knots, notwithstanding which she did not advance above three miles an

hour over the ground when in the strength of the tide, and in mid-channel. On rounding the shoal point on which the flag had been placed, I was surprised to find the water shoal to four, three, and two and three quarter fathoms; but a press of canvass giving the ship a considerable heel, she fortunately did not touch the ground. As soon as we had anchored, I found that this circumstance had arisen from the mass of grounded ice having shifted its position by floating with the rise of tide. A boat was therefore despatched to lie off the reef, as a guide to the Hecla; and Captain Lyon reached the anchorage in safety at one P.M. We lay here in twelve to fifteen fathoms at low water, on a bottom of tough mud, affording excellent holding-ground. Indeed on almost every part of this coast we found the ground equally good, at the distance of two or three cables length from the shore, whereas it is almost invariably rocky in the deeper water of the offing.

A boat from each ship being immediately prepared, Captain Lyon and myself left the

cove at three P.M. to proceed on the proposed examination. We separated at Point Cheyne, Captain Lyon having pointed out to me the broad eastern channel from which the tide appeared to come, and which it was my intention to examine, while he directed his attention to the smaller passage he had described as leading to the northward. It was agreed that we should return to the ships with as little delay as was consistent with the object we had in view, namely, to ascertain through which of the two channels it was expedient or practicable to bring the ships.

I found that the northern shore, near which there was no ice, and which is here separated from the other to the distance of two or three leagues, was that to which our course should be directed, in order to obtain a distinct view of the neighbouring lands. We therefore steered for the highest hill, which rises perhaps from twelve to fourteen hundred feet above the level of the sea. The wind freshening up to a gale from the westward, we reached the beach at seven

P.M., having obtained no soundings with fourteen to twenty fathoms of line in the course of our run. We found a good deal of surf upon the beach, which is a rough and stony one, requiring some caution to prevent swamping or staving the boat. While the men were carrying up the things and pitching the tents, Mr. Ross and myself were occupied in taking the angles for the survey, it being too late to set out on our intended excursion to the hills. We found our tents, drenched as they were by the sea, extremely comfortable. They were of the kind called horsemen's tents, and made of canvass instead of blanketing. The shelter they afford when aided by the warmth of a blanket made into a bag, and a dry suit of clothes for sleeping in, give no bad accommodation, so long as the temperature of the atmosphere does not fall more than two or three degrees below the freezing point.

The breeze moderated soon after our landing and a fine clear night succeeded. At four in the morning, Mr. Ross and myself ascended the nearest hill, in the hope of

being able to satisfy ourselves respecting the existence of a passage for the ships, in at least one direction. I therefore directed the tents to be struck and everything to be in readiness for moving on our return. On reaching the summit of the first hill, however, we found, as is not unfrequently the case, that our view was but little improved, and that no prospect could be obtained to the northward, without ascending the higher hill seen the preceding evening, and which we now found still several miles beyond us. As, therefore, no satisfactory information could be gained without giving up the day to this object, we immediately returned to the tents to breakfast, with the intention of then setting out, accompanied by two of the men. While preparing for this, I felt so much indisposed with a sick head-ache that, being apprehensive of laying myself up at a time when I could least afford to do so, I determined to intrust the proposed service to Mr. Ross, in whose zeal and ability to accomplish it I felt the utmost confidence. Mr. Ross and his party accordingly set out

for the hill at six A.M. During their absence I employed myself in obtaining the usual observations, and in noticing the height, direction, and time of the tides. By observing the motion of the fragments of ice, I found that, although there was on this shore a considerable rise of the water, there was little or no perceptible current on either tide, except within a mile or two of the high southern land, where it ran very strong, the flood to the westward, and the ebb in the opposite direction. This belt of tide, as it were, ran between a considerable opening to the south-east, and that through which we had come from the ships, and it was only in this space that any ice was at present to be seen. These circumstances tended to strengthen the opinion I had at first formed, that the main outlet into the sea from whence this ice came would be found by following the ebb-tide, which unquestionably ran to the eastward. I was still in hopes, however, that notwithstanding the absence of the ice, and of any perceptible stream of tide, in the more northerly channel which Captain

Lyon was examining, some more direct, though perhaps narrower, communication might be found, that would save us much time and trouble. The appearance of the land, which seemed to consist of a large assemblage of islands, greatly favoured this hope; nor was it discouraged by the accounts received in the evening on the return of our party from the hills. Mr. Ross reported that having reached a commanding hill, he found himself overlooking a sea of considerable extent to the eastward, and washing the foot of the hill on which he stood. This sea appeared to have some islands scattered about it, and was much encumbered with ice. To the south-eastward there seemed to be several openings between islands, of which the land we stood then upon appeared to form one, the sea sweeping round to the northward and westward, as if to join the strait discovered by Captain Lyon. Mr. Ross described the country over which he passed as much intersected by lakes, some of them not less than two or three miles in length, and having in their

neighbourhood abundance of grass, moss, and other fine feeding for the deer. The report of Mr. Ross, accompanied by an eye-sketch made upon the spot, left no doubt of the existence of an outlet to the eastward, and enabled me to decide without hesitation upon attempting the passage of the narrows with the ships, leaving our subsequent route to be determined on according to the report of Captain Lyon.

Piles of stones and the remains of Esquimaux habitations were everywhere to be seen, and Mr. Ross met with their marks even on the highest hills; but none appeared of recent date. The rein-deer were here very numerous. Mr. Ross saw above fifty of them in the course of his walk, and several others were met with near the tents. A large one was shot by one of the men, who struck the animal, as he lay on the ground, a blow on the head with the butt-end of his piece, and leaving him for dead ran towards the tents for a knife to bleed and skin him; when the deer very composedly got on his legs, swam across a

lake, and finally escaped. A small fawn was the only one killed. Three black whales and a few seals were playing about near the beach.

Our people being somewhat fatigued with walking, were allowed to rest till half-past one in the morning of the 29th, when it being high water, the tents were struck and the boat loaded. The morning was beautifully clear and tranquil, and the Aurora Borealis was faintly visible at break of day in the south-west quarter of the heavens. Leaving the shore before two o'clock, we steered for an island in the direction of Point Cheyne, and landed to breakfast on a rock off its eastern end. Proceeding towards Point Cheyne, we first began to perceive the influence of a stream of tide, as we approached some heavy ice about a mile from the point, which we found to be aground upon a shoal in twelve to seventeen feet, lying abreast of an island called, by Captain Lyon, ROUSE ISLAND. Over this shoal the ebb-tide was running from the N.N.W., at the rate of three miles an hour, to join the main stream,

which sets to the eastward along the south shore. After taking marks for the shoal, which lies rather in the way of a ship coming through this channel, we rowed over to the point. The strength of tide gradually increased as we approached the narrows, where it was running full six miles an hour in the middle of the stream, it being now about the height of the springs. We landed for a short time on Point Cheyne to obtain sights for the chronometer, and some essential angles for the survey; the boat's crew in the mean time warming and amusing themselves in hunting an ermine which, by the quickness of its turning, and the shelter afforded by the stones, escaped from them at last. Having placed a flag on this point, as a mark for the ships, no time was lost in setting out for the cove, which, after taking all the soundings and marks which the strength of the tide would permit, we reached at a quarter before ten A.M. I found that Captain Lyon had returned on board the preceding evening, having accomplished his object in a shorter time than was expected.

That no time might be lost in running the ships through the narrows, I directed three boats from each to be prepared, for the purpose of sounding every part of this intricate, and as yet unknown, passage, which I named after Captain THOMAS HURD, of the Royal Navy, Hydrographer to the Admiralty. Giving to the officer commanding each boat a certain portion to accomplish, I reserved for my own examination the narrowest part of the channel; and at thirty minutes past one P.M., as soon as the flood-tide began to slacken, we left the ships and continued our work till late at night, when having received the reports of the officers and made out a plan of the channel for each ship, I directed every thing to be in readiness for weighing at the last quarter of the ebb on the following morning. Much as I lamented this delay, at a period of the season when every moment was precious, it will not appear to have been unnecessary, when it is considered that the channel through which the ships were to be carried did not in some places exceed a mile in

breadth, with half of that space encumbered with heavy masses of ice, and with an *ebb*-tide of six knots running through it.

The lines and kedges were prepared at day-light on the 30th, but when the proper time of tide arrived there was not a breath of wind for working the ships, so that I was reluctantly obliged to remain at anchor till the next *ebb*. I therefore directed a large party of officers and men to be sent on shore in quest of game, three deer having been killed the preceding day. We had now however no success ; a number of deer were seen in herds of from four to ten, but the neighbourhood of the ships had rendered them too wild to be approached. A dog of mine, of the breed called by game-keepers buck-dogs, that had for one or two years past been accustomed to run down deer in England, had now two fair chases, but without the smallest chance of coming up even with three young fawns. The dog returned with his feet much cut by the rocks, and so completely exhausted, that he could scarcely move a limb for a day or two afterwards.

At fifteen minutes past three P.M., a light air of wind springing up from the eastward, we weighed, and, having warped out by kedges till we had cleared the shoal-point of the cove, made sail for the channel, and, with the assistance of the boats, got the Fury into the fair set of the tide, before it made very strong to the eastward. At a quarter before seven, when in the narrowest part, which is abreast of a bold headland on the south shore, where the tide was now driving the ice along at the rate of five or six knots, the wind came in a sudden gust from the south-west, scarcely allowing us to reduce and trim our sails in time to keep the ship off the north shore, which is not so safe as the other. It was now that the advantage appeared of having thoroughly sounded the channel previously to attempting the passage of it; for had the ships taken the ground with so rapid and considerable a fall of tide, and with so much heavy ice hurried along by it, I do not know what human effort could have saved them from almost immediate wreck. By carrying a heavy press of

canvass, however, we succeeded in forcing through the ice, but the *Fury* was twice turned completely round by eddies, and her sails brought aback against the helm; in consequence of which she gathered such fresh sternway against several heavy floe-pieces, that I apprehended some serious injury to the stern-post and rudder, if not to the whole frame of the ship. The *Hecla* got through the narrows soon after us, but Captain Lyon, wishing to bring away the flags and staves set up as marks, had sent his little boat away for that purpose, during the continuance of the calm weather. When the breeze suddenly came on she was still absent, and being obliged to wait for some time to pick her up, the *Hecla* was about dusk separated several miles from us.

It was my intention, after getting through the narrows, to haul round to the northward and eastward, either to find an anchorage, or to keep under way during the night, in the large space to the northward and eastward of Rouse Island, which I had before found clear of ice, and free from any per-

ceptible stream of tide. My mortification may therefore be conceived at now finding the whole of this space so covered with ice as not to be navigable, while the only clear water in sight was along the south shore, where the whole strength of tide was known to set, and which, therefore, unacquainted as we were with the soundings, would be a dangerous station for the ships to occupy during the night. There appeared, however, no alternative, and it being now dusk, we had every prospect of passing an anxious and unpleasant night.

On hauling up for the south shore, we perceived from the crow's nest a point of land that seemed to open into a bay; and as there was a chance, notwithstanding the general boldness of the coast, of our there finding ground for anchorage, we stood in for it under all sail. In this hope we were not disappointed; for, on rounding the point, we opened a snug little bay, at the head of which we anchored soon after nine P.M., in fourteen fathoms, on a bottom of tough clay. We here lay at the distance of two cables'

length from the land, which is high all round the bay; and the strong south-west wind preventing any ice from coming in, we passed a quiet night, and our people enjoyed the rest which they much required. Lights were hoisted and rockets occasionally sent up as guides to the Hecla; but as we saw no answer, and she did not arrive in the bay, we apprehended she had been obliged to keep under way during this inclement night.

At daylight on the 31st we perceived the Hecla under the land to the eastward standing towards us. I found from Captain Lyon that he had, with the same good fortune which we experienced, found a secure shelter during the night, by anchoring close under the land to the eastward, in seventeen fathoms muddy bottom. At thirty minutes past eight A.M., the wind suddenly fell, and the ice began immediately to approach the shore. We therefore weighed just in time to avoid a large floe-piece that drifted into the bay. After standing a quarter of a mile beyond the shoal, the ice obliged us to tack;

and as there was not at present the smallest prospect of our getting to the northward, so as to approach Gore Bay, in order to ascertain its continuity with the shore on which I landed on the 28th, I determined to run along the edge of the ice to the eastward, and to look for any opening that might there be found practicable, rather than wait inactively in our present situation. Our course was, therefore, directed towards the openings before observed to the eastward, where the land appeared to be broken into several islands. As we approached these, which I named after the Right Honourable WILLIAM STURGES BOURNE, we found that they presented at least four openings, all of which appeared navigable but for the ice which now choked the three northern ones. The other channel, which is the widest, was however quite clear; we therefore hauled up for it, and discovered soon after, to the southward, an opening into the Frozen Strait, thus determining the insularity of a large proportion of its north-eastern shore, which I named after the Right Honourable

NICHOLAS VANSITTART, Chancellor of the Exchequer. The opening now discovered was between Baffin and Vansittart Islands.

The *Hecla*, in rounding a point of ice which the tide had set in motion, was beset by the loose masses rapidly closing round her, and drifted by the ebb along the island lying on the north side of this channel. She remained in this situation above two hours; when, all our boats having been sent to her assistance, she was towed out into clear water, and joined us at dusk in the evening. The ice having, in the mean time, remained too close to allow us to proceed to the northward, no time was lost by this accident, and we lay-to in open water during the night in the hope of perceiving some favourable change the following day. The night was nearly calm, notwithstanding which the ships appeared so little influenced by tide, that they retained their station till daylight without any difficulty or disturbance from ice.

I was sorry to perceive, on the morning of the 1st of September, that the appear-

ance of the ice was by no means favourable to our object of sailing to the northward, along the Sturges Bourne Islands; but at ten A.M., the edge being rather more slack, we made all sail with a very light air of southerly wind, and the weather clear, warm, and pleasant. We were at noon in lat. $66^{\circ} 03' 35''$, and in long. $83^{\circ} 33' 15''$, in which situation a great deal of land was in sight to the northward, though apparently much broken in some places. From N.E. round to S.S.E., there was still nothing to be seen but one wide sea, uninterruptedly covered with ice as far as the eye could reach. A prospect like this would naturally convey to the mind of a person little acquainted with this navigation an idea of utter hopelessness. So apt, indeed, are we to be influenced by present impressions, rather than by those, however strong or often repeated, that past events have left upon the mind, that I believe even those who have been the longest habituated to the surprising changes which an hour or two will frequently bring

about in these seas, cannot altogether divest themselves of similar sensations.

At twenty minutes after noon, having advanced only a mile or two through very close 'sailing ice,' the Fury was beset in trying to force through a narrow though heavy stream, round the end of which the Hecla more prudently sailed. Having hove-to on the opposite side of it, Captain Lyon immediately sent his boats with lines, to endeavour to tow us out by making sail on the Hecla, a method which cannot be too strongly recommended, and which serves as an example of the mutual assistance that may be rendered by two ships employed on this service. The line proved rather too weak for the weight of the masses of ice, but the impulse communicated by it before it broke, aided by our own exertions, enabled us shortly after to escape, and we again made sail to the northward. At forty-five minutes past one P.M., we had come to the end of the clear water, and prepared to shorten sail, to await some alteration in our

favour. At this time the weather was so warm, that we had just exposed a thermometer to the sun, to ascertain the temperature of its rays, which could not have been less than 70° or 80° , when a thick fog, which had for some hours been curling over the hills of Vansittart Island, suddenly came on, creating so immediate and extreme a change that I never remembered to have experienced a more chilling sensation. As we could no longer see a hundred yards around us in any direction, nothing was to be done but to make the ships fast to the largest piece of ice we could find, which we accordingly did at two P.M., in one hundred and fifty-eight fathoms, at the distance of three or four miles to the eastward of Sturges Bourne Islands. Just before dark the fog cleared away for a few minutes, when, perceiving that the wind, which was now increasing, was likely to drift us too near the islands, we took advantage of the clear interval to run a mile further from the land for the night, where we again made fast to a large floe-piece in two hundred fathoms.

The ice in this neighbourhood was the heaviest, though not in the largest floes, of any we had yet seen on this voyage. It was for the most part covered with hummocks, and appeared yellow from the quantity of sand that lay upon it, and from which it generally receives the name of 'dirty ice.' After dark the fog was succeeded by heavy rain for several hours.

The wind, drawing round to the northward and westward, on the morning of the 2d, increased to a fresh gale, which continued to blow during the night, notwithstanding which, I was in hopes that the immense size of the floe to which the ships were attached would have enabled us to retain our station tolerably. It was mortifying therefore to find, on the morning of the 3d, that we had drifted more than I ever remember to have done before, in the same time, under any circumstances. It was remarkable also that we had not been set exactly to leeward, but past Baffin Island towards the two remarkable hills on Southampton Island, from which we were

at noon not more than seven or eight leagues distant. Thus, after a laborious investigation which occupied one month, we had, by a concurrence of unavoidable circumstances, returned to nearly the same spot as that on which we had been on the 6th of August. To consider what might have been effected in this interval, which included the very best part of the navigable season, had we been previously aware of the position and extent of the American continent about this meridian, is in itself certainly unavailing; but it may serve to show the value of even the smallest geographical information in seas where not an hour must be thrown away, or unprofitably employed. Nor could we help fancying at this period of the voyage, that had Bylot, Fox, and Middleton, by their joint exertions, succeeded in satisfactorily determining thus far the extent of the continental land, the time which we had lately occupied in this manner might have been more advantageously employed in rounding, by a more direct route, the north-eastern point of Ame-

rica, and even in pursuing our way along its northern shores.

In the afternoon an attempt was made to move, for the mere sake, it must be confessed, of moving and keeping the people on the alert, rather than with the slightest prospect of gaining any ground ; but by the time that we had laid out the hawsers, the small hole of water that had appeared again closed, and we were obliged to remain as before.

On the morning of the 4th the ice remained close about us, but we found at daylight that we had still approached Southampton Island, and were now within five or six miles of a very small rocky islet, not distinctly seen for ice when we first made this coast, but which now appeared black, though very low. At thirty minutes past eight A.M., the ice slackened for about a mile to the N.N.W., when we cast off with a light air of westerly wind, and got all the boats a-head, but having gained that distance were again obliged to make fast. In the afternoon the breeze freshened from the

southward, with rain, and the ice soon after slackening a little about us, we once more made sail, in the hope only of being drifted a short distance among the ice, but without the least apparent chance of forcing even a hundred yards through it in the regular way. It is, however, impossible to judge when circumstances are about to improve among the ice, which now opened so much immediately after we moved, that we advanced eight or nine miles almost without difficulty; and could still have continued to run had not night come on, when, being within a few miles of the small islands to the southward and eastward of Baffin Island, we shortened sail and made the ships fast to a floe-piece, with the intention of pushing in-shore at break of day. It was now my wish to sail through the opening last discovered between Baffin and Vansittart Islands, in order to save as much time as possible in recommencing the examination of the continental coast at the point to which it had already been traced. Our soundings varied during the night from one hundred and three to sixty-one fathoms.

At four A.M. on the 5th we cast off and made sail for the land with a fresh breeze from the south-east. The ice was closely packed against the land near the passage I had intended to try, and, as it appeared slack to the eastward, I determined to run between the south-east point of Baffin Island and the smaller islands lying off it. The wind drawing more to the eastward as we approached the channel, we had several tacks to make in getting through, but carried a good depth of water on each side, though its breadth does not exceed three-quarters of a mile. As we now advanced to the northward, we found less and less obstruction, the main body of the ice having been carried to the southward and eastward by the late gale, which had in so extraordinary a manner drifted us in the same direction. This was one of the opportunities I have before described as the most favourable that ever occur for making progress in these seas. We had, therefore, a fine run during the day along the east side of Sturges Bourne Islands; for, having found the passages between them still

choked with ice, we were obliged to run to the northward with the hope of attaining our present object. A large opening in the land now came in sight in the N.N.W., being that discovered by Mr. Ross on the 28th of August, and which had led us to suppose the land we then stood on would prove insular, and that some communication would be found to the northward of it with Gore Bay. For this opening therefore our course was directed, and in the evening we arrived off a point of the eastern land, which I named CAPE EDWARDS, after Mr. John Edwards, Surgeon of the Fury. We had here twelve fathoms, at the distance of a mile from the shore, and found the water deepen gradually as we hauled out. A small stream of ice lay off the point, besides which there was not a piece in sight, and we ran along the shore without obstruction till it was time to look out for an anchorage. Having first sent the boats to sound, we hauled into a small bay where we anchored at dusk, in seventeen fathoms, good holding-ground, though the bottom was so irre-

gular that we had from five to thirteen close upon our quarter.

We began to weigh at break of day on the 6th, but found the ground so tough that we had some difficulty in purchasing the anchors. In effecting this, James Richardson, one of the leading-men of the *Fury*, received a severe contusion on his shoulder by the purchase-block falling upon him from aloft *. After running four or five leagues to the northward and westward, we came, at thirty minutes after nine A.M. to a small group of islands lying in the channel, and directed our course to the eastward of them. The wind, however, failing us just in the middle, we hauled out and sent the boats to tow; but whichever way we put the ships' head, a 'cat's paw' every now and then took the sails aback, keeping us for an hour in a very awkward situation, being only two

* This accident, which produced no eventual injury, occurred in consequence of an iron hook giving way. It is only mentioned in this place, to show the propriety of substituting lashings for the hooks of blocks, wherever practicable, in this climate.

hundred yards from either shore, and in seventy fathoms' water. The boats being sent to sound, several shoals were discovered just beyond us to the northward, but nothing like anchorage near them. As the situation of the ships was now a very precarious one, should any stream of tide begin to run, I determined to tow them into two small nooks near us, where they might at least be out of the way of the tide. Finding here a depth of from seventeen to nineteen fathoms at half a cable's length from the shore, the anchors were dropped, and several hawsers immediately secured to the rocks, to steady the ships. The men, from this circumstance, and with their usual humour, called this place *Five-hawser Bay*, by which name I have distinguished it on the chart. We found the two little nooks communicated by a narrow and shallow channel, making the land which intervened between the ships an island about a quarter of a mile in length.

We had now once more approached a part of the coast of which the thorough and

satisfactory examination could not possibly be carried on in the ships, without incurring constant and perhaps useless risk, and a certain and serious loss of time. I determined, therefore, to proceed at once upon this service in two boats, one from each ship. Having communicated my intentions to Captain Lyon, and requested him to move the ships when practicable into some more secure situation, I left the Fury, accompanied by Mr. Ross and Mr. Sherer, taking with us our tents, blankets, and stove, together with four days' provisions and fuel.

CHAPTER IV.

Hoppner's Inlet entered and surveyed by the Boats —Continuity of Land there determined—Proceed to examine another Opening leading to the Westward—Favourable Appearance of a continued Passage in that direction—Meet with some Esquimaux—Arrival in Ross Bay, being the termination of Lyon Inlet—Discovery and Examination of various Creeks—Return to the Ships, after finding the Land entirely continuous—Some Account of the Natural History of this part of the Coast.

A THICK fog unfortunately coming on just before we left the ships, prevented us from making choice of any part of the land, which might be the most likely to afford a passage to the northward and westward. We could only, therefore, direct our course northerly with tolerable certainty, by a compass-bearing previously taken on board, and by occasionally obtaining an indistinct glimpse of the land through the fog. Having

rowed four miles, we came to a high point, round which we turned rather to the westward, and then landed a little beyond it. The fog becoming somewhat less thick, Mr. Sherer and myself ascended the hill in hopes of obtaining a view of the surrounding shores, in order to form a better judgment of the route we should pursue on the following morning. Having taken all the compass-bearings that the weather would permit, we descended to the beach, where we found that Mr. Ross had hauled the boats up and pitched the tents for the night. A number of deer were seen, but they were very wild; a hare or two, however, and some ptarmigan were procured for our suppers. It was high water by the shore at thirty minutes past six P.M., but no stream of tide was perceptible.

The tents were struck at thirty minutes past three A.M. on the 7th, and our course directed up the inlet, the weather being calm and tolerably clear. At three miles and a quarter we passed, on our starboard hand, a point of land, which, from the

bright colour of the rocks, composed chiefly of felspar, obtained the name of *Red Point*.

Opposite to Red Point was a small opening, which we next proposed to examine. We had not, however, advanced a mile within the entrance when the boats grounded, the water becoming more and more shoal within. We therefore landed to obtain the best view we could, and observed the water to extend about a mile beyond us, and then turn to the southward, in which direction the land obstructed our further view. As it was plain that no passage could here be found for the ships, which alone it was my present object to discover, I did not choose to wait for the flowing of the tide to enable us further to explore this place, but determined to prosecute our examination of the other parts of the coast without delay. Lieutenant Hoppner subsequently determined the insularity of the land on the south side of this opening by rowing through the passage at high water. There were here a great number of stones placed in an upright

position in every conspicuous spot, many of them looking like men at a distance. These marks are generally placed without regard to regularity, but there were here several lines of them about fifty yards in length, the stones being four or five yards apart, and each having a smaller one placed on its top. Having rowed out of the inlet, we landed at six P.M. in a little bay just outside of the last night's sleeping-place, pitching the tents on a fine shingly beach, which was the kind of ground we usually looked out for towards the conclusion of the day, as affording the softest bed, consistently with dryness, that nature supplies in this country. Of such a convenience the men were not sorry to avail themselves, having rowed above thirty miles since the morning.

The boats were launched at daylight on the 8th, and we soon came to a much more promising opening on the same shore, about a mile wide at the entrance, and leading directly to the westward. After rowing four miles in that direction, we arrived at the mouth of a bay from three to five miles

wide, out of which there did not appear the least chance of discovering an outlet. As nothing, however, but rowing round the bay would satisfactorily determine this, we were proceeding to do so, when we observed, in the northern corner, something like a low point overlapping the high land at the back. Towards this spot we steered, as the readiest way of completing the circuit of the bay, and half a mile short of it landed to breakfast.

In the mean time I sent Mr. Ross to one hill, and ascended another myself, expecting to save the time and trouble of rowing into the nook. I was not a little astonished to find from my own and Mr. Ross's observations, that there was on the other side of the point, a broad and apparently navigable channel, through which the tide was setting to the northward, at the rate of three or four miles an hour. I am thus minute in the discovery of this channel, which afterwards promised to be of no small importance, to show how nearly such a place may be approached without the slightest suspicion

being entertained of its existence, and the consequent necessity of *close* examination, wherever a passage is to be sought for. An inspection of the chart, together with the narrative of our proceedings for the four or five following days, will afford a striking and perhaps a useful lesson in this respect.

We continued our examination, and I despatched Mr. Sherer to the ships for a fresh supply of provisions. On his return on the 10th we proceeded to the westward. Having passed several islands on our left, we kept close along the northern shore, which here began to trend considerably to the southward of west. In running along the coast with a fresh and favourable breeze, we observed three persons standing on a hill, and, as we continued our course, they followed us at full speed along the rocks. Having sailed into a small sheltered bay I went up, accompanied by Mr. Bushnan, to meet them on the hills above us. In sailing along the shore we had heard them call out loudly to us, and observed them frequently lift something which they held in their

hands; but on coming up to them they remained so perfectly mute and motionless, that, accustomed as we had been to the noisy importunities of their more sophisticated brethren, we could scarcely believe them to be Esquimaux. There was besides a degree of lankness in the faces of the two men, the very reverse of the plump round oily cheeks of those we had before seen. Their countenances at the time impressed me with the idea of Indian rather than of Esquimaux features; but this variety of physiognomy we afterwards found not to be uncommon among these people. The men appeared about forty and twenty-two years of age, and were accompanied by a good-looking and good-humoured boy of nine or ten. They each held in their hand a seal-skin case or quiver, containing a bow and three or four arrows, with a set of which they willingly parted, on being presented with a knife in exchange. The first looks with which they received us betrayed a mixture of stupidity and apprehension, but both wore off in a few minutes, on our

making them understand that we wished to go to their habitations. With this request they complied without hesitation, tripping along before us for above two miles over very rough ground, and crossing one or two considerable streams running from a lake into the sea. Thus they performed with so much quickness that we could with difficulty keep up with them, though they good-naturedly stopped now and then till we overtook them. We were met on our way by two women, from twenty to twenty-five years of age, having each a child at her back; they too accompanied us to their tent, which was situated on a high part of the coast overlooking the sea. It consisted of a rude circular wall of loose stones, from six to eight feet in diameter and three in height, in the centre of which stood an upright pole made of several pieces of fir-wood lashed together by thongs, and serving as a support to the deer-skins that formed the top covering. Soon after our arrival we were joined by a good-looking modest girl of about eight, and a boy five years old.

Of these nine persons, which were all we now saw, only the elder man and two of the children belonged to this tent, the habitations of the others being a little more inland. The faces of the women were round, plump, tattooed, and in short completely Esquimaux. The *kayak* or canoe belonging to this establishment was carefully laid on the rocks close to the seaside, with the paddle and the man's mittens in readiness beside it. The timbers were entirely of wood, and covered as usual with seal-skin. Its length was nineteen feet seven inches, and its extreme breadth two feet; it was raised a little at each end, and the rim or gunwale of the circular hole in the middle was high, and made of whale-bone. A handsome seal-skin was smoothly laid within as a seat, and the whole was sewn and put together with great neatness. The paddle was double, made of fir, and the ends of the blades tipped with bone, to prevent splitting.

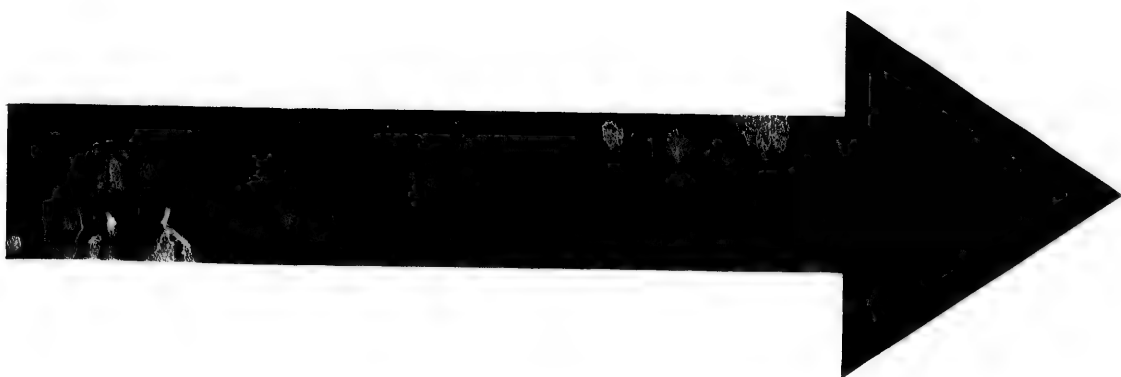
The fire-place in the tent consisted of three rough stones carelessly placed on end against one side, and they had several pots

of *lapis ollaris*, for culinary purposes. These people seemed to us altogether more cleanly than any Esquimaux we had before seen, both in their persons and in the interior of their tent, in neither of which could we discover much of that rancid and pungent smell, which is in general so offensive to Europeans. One instance of their cleanliness which now occurred, deserves, perhaps, to be noticed, both because this is justly considered rather a rare quality among Esquimaux, as well as to show in what way they do sometimes exercise it. When leaving the tent, to return to our boats, I desired one of the seamen to tie the articles we had purchased into a single bundle, for the convenience of carrying them: but the elder of the two male Esquimaux, who watched the man thus employed, would not permit it to be done without excluding a pot, which, as he explained by wiping the lamp-black off with one of his fingers, would soil a clean seal-skin jacket that formed part of the bundle.

Among the few domestic utensils we saw

in the tent was the woman's knife of the Greenlanders described by Crantz, and resembling, in its semi-circular shape, that used by shoe-makers in England. The most interesting article, however, was a kind of bowl exactly similar to that obtained by Captain Lyon from the natives of Hudson's Strait, being hollowed out of the root of the musk-ox's horn. As soon as I took the cup in my hand, the boy who was our first companion, and had since been our constant attendant, pronounced the word *oomingmuk*, thus affording an additional confirmation to that obtained on the former voyage, of the musk-ox being the animal described by the natives of the west coast of Greenland, as having occasionally, though rarely, been seen in that country.

As soon as the Esquimaux became a little more familiar with us, they repeatedly asked for *sowik* (iron), in answer to which we gave them to understand that they must accompany us to our boats, if they wished to obtain any of this precious article. Accordingly the whole group set off with us on



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our return, the males keeping up with us, and the women a short distance behind. The whole of the children carried bundles of the branches of ground willow, which we had just before seen them bring in for their own use, and which they seemed to consider an article of barter that might be acceptable to us. As we returned, I noticed a quantity of the *ledum palustre*, and having plucked some of it, gave it to the boy to carry; after which, though he very much disliked its smell, he gathered every root of it that we came to, and deposited it at our tents. This lad was uncommonly quick and clever in comprehending our meaning, and seemed to possess a degree of good-humour and docility, which, on our short acquaintance, made him a great favourite among us.

We had hitherto been much pleased with our new acquaintance, who were certainly a good-humoured decent sort of people. We therefore loaded them with presents, and endeavoured to amuse them by showing them the manner of rowing our boats, which were hauled up on the beach. While the

men and children were occupied in observing this, the women were no less busily employed, near the tents, in pilfering and conveying into their boots, some of our cups, spoons, and other small articles, such as they could conveniently secrete. This they accomplished with so much dexterity, that no suspicion would have been excited of their dishonesty, had not Mr. Sherer fortunately missed a cup which was required for supper. A general search being instituted in consequence, and the cargo of the women's boots brought back to our tents, I directed all our presents to be likewise taken from the two offenders; and, dismissing the whole party with great appearance of indignation, thus put an end, for the present, to our communication with these people.

We moved before broad daylight on the 11th, and, after two hours' progress, began to perceive every appearance of our having once more got into a close bay, round the shores of which we now proceeded to row. To the bay that thus terminated the inlet, which had till now excited such encouraging

hopes, I gave the name of Ross Bay, in compliment to the gentleman who had accompanied me during the whole of this examination. We landed at sunset at the mouth of another creek, which was reserved for examination on the following morning; and were not sorry to pitch our tents on a fine shingly beach, after a cold and wet day's work. We here saw, as usual, several deer, but nothing except a marmot and a covey of nine ptarmigan were killed in the course of the day.

On the following day, I once more despatched Mr. Sherer back for a fresh supply of provisions, and having, from the hill, fixed on a remarkable islet for his first rendezvous, directed him to follow us as before.

We spent the two next days in exploring a creek which we called CULGRUFF, and another on the opposite, or eastern shore, which received the name of NORMAN'S CREEK, and returned to the Hecla on the evening of the 14th.

I learned from Captain Lyon that the

Hecla had just anchored at her present station, the Fury still remaining at the former place, into which the ice had lately come so thick as to require the assistance of all hands from both ships to warp and tow the Hecla out. Proceeding with a fresh boat's crew towards the Fury, which we found close beset by thick and heavy ice, we succeeded after much difficulty in hauling the boat through it, and arrived on board at ten P.M.

The next object to which my attention was directed was the connecting of the coast last examined with that of Gore Bay—an object that might perhaps have been effected during my absence; but I did not consider it prudent, in the insecure situation in which I had been obliged to leave the ships, to take more than one boat's crew from each, which number out of our small complements of working men bore a large proportion to the whole strength that might be required on any emergency. The absence of two boats from either ship, indeed, scarcely left hands enough to purchase the anchor, much less to handle them with the alacrity neces-

sary among ice, and in a confined and rocky navigation. It remained, therefore, to complete this examination in the boats, as soon as the Fury could be extricated from the ice by which she was at present beset.

This ice consisted of heavy and large floe-pieces, which pressed with considerable force upon the cable; but the strain being steady, the ground good, and little or no stream of tide running, the anchor did not come home. It may here be of service to remark that, in smooth water, and in situations *where there is no perceptible stream of tide*, a ship's safety is not so much endangered by the approach of a large body of loose ice as might be supposed. The smaller pieces are pushed astern by poles, the larger masses, not coming with any violence, rest across the cable or bows without doing any damage, and the space between the ship and the land is generally soon filled up with ice, so as to preclude the possibility of her being driven on shore, even should the anchor afterwards come home.

As soon as the tide would serve in the

offing, on the morning of the 15th we weighed, and by means of warping and towing, in which we were assisted by Captain Lyon's boats, succeeded in joining the *Hecle* at her anchorage at three P.M. About the same time Lieutenant Hoppner arrived, having re-examined that arm of the sea which I had at first explored; being the only one near, Captain Lyon had in pursuance of my directions instructed him to trace it, not knowing that I had already done so. From Lieutenant Hoppner's report and observations, however, much useful information was derived in laying down the coast. Among other things, the extent and communication of the opening I had entered but could not pass on the 7th, had now been determined by rowing through at high water, and returning to the ships by that route. To this arm of the sea I gave the name of HOPPNER'S INLET; and the more extensive one which I had lately returned from exploring, was distinguished by the name of my brother-officer, CAPTAIN GEORGE FRANCIS LYON.

While a boat from each ship was preparing for our next excursion, I communicated to Captain Lyon my wishes respecting the movement of the ships, directing him to follow me down the south-western land as soon as it might be practicable, that no time might be lost in prosecuting the voyage either in the direction I was now about to pursue, should I there discover an outlet to the westward, or failing to do so, to the eastward of the land now in sight, which, in that case, would prove to be a part of the continent. With a view also to save time on my return, I requested Captain Lyon to endeavour to ascertain whether a portion of land to the south-eastward of the inlet, on which it was our lot afterwards to winter, was insular or connected with the main land. These and other necessary arrangements being shortly made, I left the ships at thirty minutes after four P.M., accompanied by Messrs. Ross, Sherer, and Mac Laren, the two latter gentlemen in the Hecla's boat, the whole party being victualled for nine days.

CHAPTER V.

Further Examination in the Boats for the purpose of connecting the shores of Lyon Inlet with that of Gore Bay—Continuity of the Land determined—Fresh detention by the Ice—Boats carried over Land—Return to the Ships—Progress out of the Inlet prevented by the Ice—The Fury grounds upon a Rock—Anchor in Safety Cove—Heavy Easterly gales—Proceed out of the Inlet—Arrival in a Bay on the south side of Winter Island—Ships secured in winter-quarters.

At the time of my quitting the ships on the 15th, the ice was in sight from the mast-head, stretching across the mouth of the inlet, a few miles below our anchorage, while the sea was only partially covered with loose masses near our last station, and higher up was entirely free from it. I was in hopes, however, of being able to find our way along-shore in the boats without incurring any great loss of time; and, at all events, there was a satisfaction in knowing

that, should the boats fail in doing so, it would be in vain to attempt it in the ships; so that, in every point of view, our present plan was the only advantageous one that could be adopted.

We rowed before sunset between six and seven miles along the high south-western land, passing what appeared a small harbour, with an island near the middle of the entrance, and landed on a shingly beach near a small bay or creek, extending three quarters of a mile to the W.N.W. and then terminating in a deep broad valley. There were here three or four acres of thick, close, and rather long grass, affording excellent feeding for the rein-deer and hares, of which several were seen. A great number of white whales were playing about near the beach. We left the shore at half-past four A.M. on the 16th, and in an hour's sailing with a fresh north-west wind came to some loose ice, through which we continued to make our way till eleven o'clock, when it became so close that a passage could no longer be found in any direction.

There was also so much young ice in every small interval between the loose masses, that the boats were much cut about the water-line in endeavouring to force through it. We were now abreast of a remarkable bluff, forming the northern point of an open bay, in which alone there was the smallest pool of clear water to be seen. In order, therefore, to avoid the risk of being altogether driven from the shore, I determined to attempt a passage into the bay, which was three-quarters of a mile distant; and in this, after two hours' labour, we at length succeeded. The tents being pitched and the boats hauled up, a part of our hands were employed in repairing the damages occasioned by the young ice, while the rest were despatched inland in search of game: in this pursuit they were not successful, only one hare being brought in before dark. Finding that the ice was likely to prove an obstacle of which we could not calculate the extent or continuance, we began at once to reduce our daily expenditure of provisions, in order to meet any contingency.

Ascending the hill at daylight on the 17th, we were much disappointed in finding that, though the ice continued to drive a little to the S.E., it was even more compact than before, the loose masses through which we had sailed the preceding day being now closely set together. Our people were to-day rather more successful in pursuit of game, bringing in seven hares before sunset. These animals are quite white, presenting so strong a contrast with the colour of the ground on which no snow as yet remained, as to render them very conspicuous at a distance; and we often killed them on landing, by having observed their situation while rowing along-shore at the distance of half a mile or more. Several of the ermines also which we had procured for the last week or two were entirely white, except the little brush at the tip of the tail, which was black. In other specimens of this animal, however, the back was quite brown and the belly of a delicate light straw or sulphur colour.

It was high water on the morning of the

18th, at four o'clock, being somewhat *earlier* than the preceding tide; a kind of irregularity which was very common about the mouth of Lyon Inlet at this season, rendering it impossible by one or two observations to calculate the true time of tide on the full and change days of the moon. As soon as it was light enough to make out the situation of the ice, which had now drifted considerably to the southward, we left the bay with a fresh and favourable breeze, and at a quarter past eight A.M., after a quick run through 'sailing ice,' landed to breakfast on the south-east point of this shore, which afterwards received the name of CAPE MARTINEAU, out of regard for a highly esteemed friend and relative. There being a number of small islands and shoals about this point, we found much difficulty in picking our way through the ice lying aground upon them, which, however, we at length effected; and after passing the S.W. point, which I named after Mr. M'LAREN, got into clear water to the westward, crossing an open bay with a shoal near the middle of

the entrance. Proceeding from hence with a strong breeze and a considerable sea ahead, but the flood-tide still running slowly with us to the N.W., we rowed several miles close along the shore, and entered at dusk a little cove, where the tents were pitched and the boats moored for the night.

The night being cold, clear, and nearly calm, a quantity of 'bay-ice,' half an inch in thickness, had on the morning of the 19th formed in the cove, and for some distance outside of it, which again cut the boats' planks very much, besides occasioning great loss of time in getting through it. This symptom of approaching winter, which had now for the first time occurred to us, rendered it expedient in future to select the most open beaches for our resting-places at night. As soon as we had extricated ourselves from this impediment, we rowed along without further hinderance, as no young ice had formed in the deeper water of the offing. After tracing every bend of the shore which here occurred, and especially that of a bay named, by Mr. Sherer's

request, MOYLE BAY, we landed at the point called by Captain Lyon POINT FAHILL, at a quarter past seven; and ascending the hill to take angles, obtained a view of Gore Bay, easily recognizing every other feature of the lands discovered by Captain Lyon. A mile or two of coast was now all that remained to be examined, in order to determine the connexion of Gore Bay with the rest of the land recently explored. Proceeding, therefore, as soon as our observations were finished, we soon after entered the bay, and in the course of an hour had satisfied ourselves on this point.

Being apprehensive that the south-east wind would bring in the ice and obstruct our return to the ships round Cape Martineau, I gave orders for moving at break of day on the 20th; and had scarcely launched the boats when my apprehensions were confirmed, by observing a great deal of close ice a little below the island.

The ice remained closely packed on the 21st, as far as we could see along shore, so that we were still detained in the same

place. A party sent out to procure game killed a deer and a hare: the former after being wounded took a deep lake, into which the people had to swim to get him out. Except these animals, which were here tolerably abundant, the game was scarce, though there was no want of feeding for them. The ground-willow was plentiful, and so dry at this season, that we easily procured enough for keeping up a good fire all day. Some snow which fell in the course of the preceding night, lightly powdering the land, had entirely disappeared before the evening, except in places having a northern aspect, where it now permanently remained for the winter.

On the morning of the 22d the ice was not only as close as ever, but had forced its way much higher up towards Gore Bay. A party was therefore sent out to endeavour to procure game further inland; and another employed in gathering ground-willow, which was here abundant and in good condition for fuel. Two bears, a female and her cub, being probably attracted by the

smell of our cooking, came towards the tents upon the ice, but upon hearing our voices sat off in the opposite direction. A good deal of snow fell in partial showers in the course of the day; it was nearly of that fine kind which usually falls during the winter of these regions, but we had flake snow and even light rain some days after this. The snow, however, now remained undissolved upon the land in all situations. Our hunting party returned late in the evening without success, having merely seen a number of rein-deer, which the want of cover prevented their approaching. Seven days out of the nine for which we were victualled having now elapsed, a party was selected for walking over to the ships on the following day, should the ice still continue in its present state.

The ice continuing in the same state, we commenced our work at break of day on the 24th, and in three journeys had carried all the lighter part of our baggage over land by eleven o'clock. All hands then returned for the two boats, across the gunwales of

which the masts and oars were lashed for lifting them, the ground not allowing us to drag them except for a short space here and there. By half-past one the first boat had been carried over, and, by the unwearied exertions of the officers and men, we had the satisfaction of launching the second before four o'clock, the distance being a mile and a half, and chiefly over rocky and uneven ground. The weather felt cold and raw during the day; but we were afterwards surprised to learn that, while we were thus employed, the thermometer had been as low as 20° on board the ships. As soon as we had dined, the boats were reloaded; and at five o'clock we left the shore. A quantity of ice was still aground upon the shoals and islets off Cape Martineau, through which however we fortunately found a passage before dark, when, having cleared every obstacle, we sailed in an open sea and with a fresh breeze to the northward. Keeping close along the shore to avoid missing the ships in the dark, our first musket was immediately answered by

a blue-light; and being guided by the lights now shown by the ships, we arrived at nine P.M., where we found that our late detention had excited some alarm for our safety.

On the 1st of October, some small rain fell, which immediately freezing, made the decks and ropes as smooth and slippery as if coated with glass; the thermometer had for several days past permanently fallen below the freezing point, and sometimes as low as 20° at night; which change, together with the altered appearance of the land, and the rapid formation of young ice near the shores, gave pretty evident notice of the approach of winter. The commencement of this dreary season in these regions may, indeed, be fairly dated from the time when the earth no longer receives and radiates heat enough to melt the snow which falls upon it. When the land is once covered with this substance, so little calculated to favour the absorption of heat, the frigorific process seems to be carried on with increased vigour, defining very clearly the change from summer to winter, with little

or no intermediate interval to which the name of autumn can be distinctly assigned.

On the 4th we left our anchorage, which, from the security it had afforded us, obtained the name of SAFETY COVE, lies in latitude $66^{\circ} 31' 59''$, and in longitude, by chronometers, $83^{\circ} 48' 54''$, being in the north-east corner of a considerable bend in the coast, which seems to be full of dangerous rocks and shoals, mostly covered by the tide, and is therefore distinguished on the chart as the BAY OF SHOALS.

We passed Cape Edwards on the 6th; but on the 8th the formation of young ice upon the surface of the water began most decidedly to put a stop to the navigation of these seas, and warned us that the season of active operations was nearly at an end. It is, indeed, scarcely possible to conceive the degree of hinderance occasioned by this impediment, trifling as it always appears before it is encountered. When the sheet has acquired a thickness of about half an inch, and is of considerable extent, a ship is liable to be stopped by it unless favoured

by a strong and free wind ; and even when still retaining her way through the water, at the rate of a mile an hour, her course is not always under the control of the helmsman, though assisted by the nicest attention to the action of the sails, but depends on some accidental increase or decrease in the thickness of the sheet of ice, with which one bow or the other comes in contact. Nor is it possible, in this situation, for the boats to render their usual assistance, by running out lines or otherwise ; for having once entered the young ice, they can only be propelled slowly through it by digging the oars and boathooks into it, at the same time breaking it across the bows, and by rolling the boat from side to side. After continuing this laborious work for some time with little good effect, and considerable damage to the planks and oars, a boat is often obliged to return the same way that she came, backing out in the canal thus formed to no purpose. A ship in this helpless state, her sails in vain expanded to a favourable breeze, her ordinary resources

failing, and suddenly arrested in her course upon the element through which she has been accustomed to move without restraint, has often reminded me of Gulliver tied down by the feeble hands of Lilliputians; nor are the struggles she makes to effect a release, and the apparent insignificance of the means by which her efforts are opposed, the least just or the least vexatious part of the resemblance.

When to the ordinary difficulties which the navigation of the Polar Seas presents were superadded the disadvantages of a temperature at or near zero, its necessary concomitant the young ice, and twelve hours of darkness daily, it was impossible any longer to entertain a doubt of the expediency of immediately placing the ships in the best security that could be found for them during the winter, rather than run the risk of being permanently detached from the land, by an endeavour to regain the continent. Captain Lyon being of the same opinion with myself, we proceeded on our return to the beach to sound the north-

eastern part of the bay, by making holes in the ice which was now strong enough to bear us. We were in hopes of receiving effectual shelter from the numerous grounded masses, but could only find berths within one of them in five to six fathoms water. We now, for the first time, *walked* on board the ships; and before night had them moved into their places, by sawing a canal for two or three hundred yards through the ice. The average thickness of the new floe was already three inches and a quarter; but being in some places much less, several officers and men fell in, and, from the difficulty of getting a firm place to rest on, narrowly escaped a more serious inconvenience than a thorough wetting. The whole sheet of ice, even in those parts which easily bore a man's weight, had a waving motion under the feet, like that of leather or any other tough flexible substance set afloat, a property which is, I believe, peculiar to salt-water ice.

In reviewing the events of this our first season of navigation, and considering what

progress we had made towards the attainment of our main object, it was impossible, however trifling that progress might appear upon the chart, not to experience considerable satisfaction. Small as our actual advance had been towards Behring's Strait, the extent of coast newly discovered and minutely explored in pursuit of our object, in the course of the last eight weeks, amounted to more than two hundred leagues, nearly half of which belonged to the continent of North America. This service, notwithstanding our constant exposure to the risks which intricate, shoal, and unknown channels, a sea loaded with ice, and a rapid tide concurred in presenting, had providentially been effected without injury to the ships, or suffering to the officers and men; and we had now once more met with tolerable security for the season. Above all, however, I derived the most sincere satisfaction from a conviction of having left no part of the coast from Repulse Bay eastward in a state of doubt as to its connexion with the continent. And as the mainland now

in sight from the hills extended no farther to the eastward than about a N.N.E. bearing, we ventured to indulge a sanguine hope of our being very near the north-eastern boundary of America, and that the early part of the next season would find us employing our best efforts in pushing along its northern shores.

CHAPTER VI.

Precautions for the Security of the Ships and their Stores—and for the Health and Comfort of the Crews—Establishment of Theatrical Entertainments and Schools—Erection of an Observatory and House on Shore—State of Health at this period—Partial Disruption of the Ice in the Bay—Anchors and Cables taken to the Shore—Gradual Increase of Cold, Appearance of the Aurora Borealis on several occasions, and various other Meteorological Phenomena to the close of the Year 1821.

Our operations at sea being now at an end for the season, my chief attention was directed to the security of the ships, and to the various internal arrangements which experience suggested as necessary for the preservation of cleanliness, health, and comfort during the winter, as well as for the economical expenditure of the provisions, fuel, and other stores.

The situation which circumstances obliged

us to put up with for our winter-quarters, was by no means as secure as could have been wished. The bay, though as fine a roadstead as could have been desired if situated in a more temperate climate, was still only a roadstead; and, being entirely open to the south, was exposed to a pressure from ice in that direction, unless the solid floe now about to be formed round the ships should shortly become sufficient to guard them from external injury. There was some reason, however, to doubt the efficacy of this protection; for, as the spring-tides approached, the numerous grounded masses around the shores of the bay began to evince symptoms of instability, one or two having fallen over and others turned round; so that these masses might be looked upon rather as dangerous neighbours, likely to create a premature disruption of the ice, than as the means of security which, in seas not subject to any considerable rise of tide, they had so often proved to us on former occasions. To these circumstances was added our uncertainty whether very high

tides, during the winter, might not crack the ice, thereby exposing the ships to the double danger of being 'nipped' about their water-line, and of being drifted out of the bay by northerly gales. That which was, however, perhaps the most to be apprehended was the possibility of the ships being forced into shoal water, without detaching themselves from the mass of ice cemented to their bends, the weight of which, hanging upon the sides of a ship left aground by the tide, could not but produce very serious injury.

Such were the principal contingencies to which we were liable, and which, though we happily escaped them all, rendered our present situation an experiment I would willingly have dispensed with trying. As a measure of precaution, we began by removing the ships into rather deeper water, by cutting the ice astern, so that they now lay in full six fathoms at low water. Several hawsers were also secured to the grounded masses ahead of the ships, and the chain-cables kept bent till some idea could be

formed of the dependence to be placed on the ice, under the various circumstances of wind and tide that might occur. The disposition of the masts, yards, and sails was next determined on. The fore and main-top masts were kept fidded, the top-gallant-masts (except the *Fury's* main one, which was kept up for the electrometer-chain) were struck, the lower yards got down to the housing, the top-sail yards, gaff, jib-boom, and spritsail-yard remaining in their proper places. The topsails and courses were kept bent to the yards, the sheets being unrove, and the clues tucked in. The rest of the bending-sails were stowed on deck to prevent their thawing during the winter; and the spare spars were lashed over the ships' sides, to leave a clear space for taking exercise in bad weather.

In these arrangements I had kept in view a determination to send nothing out of the ships during the winter, as well to avoid the possibility of loss by robbery should any natives visit us, as to prevent a great deal of unnecessary wear and tear, incurred, on

a former occasion, in the removal of stores to and from the shore. With the same view, it was my first intention to keep all the boats hanging at the davits, but the carpenter of the *Fury* having represented their liability to injury by frost, if not protected by a covering of snow, I then proposed placing them on the ice near the ships. This plan, however, I was also induced subsequently to relinquish, from our ignorance of the effect likely to be produced upon the ice by the winter's tides, and we therefore hauled them on shore, and, placing their gear in them, covered them with snow.

About the time of our arrival in the bay, when the thermometer had fallen nearly to zero, the condensation of vapour upon the beams of the lower deck, and in the cabins near the hatchways, commenced just as it had done at a similar temperature before. To remedy this evil, no time was lost in lighting a fire in the warming-stove upon the orlop-deck, everything being previously moved from its neighbourhood that was likely to create danger. The iron tanks in

the main hatchway were laid bare on the top, and the interstices between them filled with sand, to form a secure platform in front of the fire; and the sail-room, bulk-heads, and stancheons covered with sheet copper. Four steady men, of whom one was a petty officer, were appointed to attend the fire in regular watches, being made responsible for the due expenditure of the fuel, and for the safety of everything about the stove. They had likewise particular charge of the fire-engine, buckets, and two tanks of water, all of which were kept in the hatchway in constant readiness in case of accidents. In addition to these precautions, some general regulations were established for stationing the officers and men in the event of fire; and a hole was directed to be kept open in the ice alongside each ship, to ensure at all times a sufficient supply of water. In twelve hours after lighting the stove not a drop of moisture remained.

The provisions supplied to the Expedition were calculated to last, at full allowance, for a period of three years from the pre-

ceding 1st of July, the day the transport left us; but as, in case of our passing three winters in the ice, and at length effecting our object, it would be absolutely necessary to extend our resources to the close of the year 1824, such arrangements were now commenced as were requisite for that purpose. Such indeed was the unbounded liberality with which all our supplies had been furnished, particularly in the important article of Donkin and Gamble's preserved meats, which contain great nutriment in a small bulk, that by a judicious scale previously made out by Mr. Hooper, it was only necessary to adopt, during the inactive season of each winter, a reduction of one-third of the usual proportion of bread and spirits, and of one-sixth of the ordinary allowance of sugar. This reduction could hardly be considered a privation, for the bread was still sufficient, and the spirits much more than enough, for men who had no very laborious duties to perform.

The regulations for the maintenance of due cleanliness among the ships' companies

were principally the same as those established on the preceding voyage. As a source of rational amusement to the men, soon after our arrival, I proposed to Captain Lyon and the officers of both ships once more to set on foot a series of theatrical entertainments, from which so much benefit in this way had, on a former occasion, been derived. This proposal was immediately and unanimously acquiesced in; Captain Lyon obligingly undertook to be our manager, and, some preparation having been made for this purpose previous to leaving England, everything was soon arranged for performing a play on board the *Fury* once a fortnight. In this, as in more important matters, our former experience gave many useful hints. Our theatre was now laid out on a larger and more commodious scale, its decorations much improved, and, what was no less essential both to actors and audience, a more efficient plan adopted for warming it, by which we succeeded in keeping the temperature several degrees above

zero on each night of performance throughout the winter*.

To furnish rational and useful occupation to the men, on the other evenings, a school was also established under the voluntary superintendence of Mr. Halse, for the instruction of such of the men as were willing to take advantage of this opportunity of learning to read and write, or of improving in those acquirements.

While these internal arrangements were making, the interests of science were not

* While on the subject of our plays, I cannot omit to mention that, just before we left England, a large and handsome phantasmagoria or magic lantern had been presented to me for the use of the Expedition, by a lady who persisted in keeping her name a secret to those whom she was thus serving. This apparatus, which was excellent of its kind, was frequently resorted to during this and the succeeding winter; and I am happy to avail myself of this mode, the only one in my power, of thanking our benefactress, and assuring her that her present afforded a fund of amusement fully answering her kind intentions.

neglected. A day or two after our arrival, Mr. Fisher and myself selected a spot for the portable observatory, which was immediately erected for the purpose of making magnetic observations; and as soon as the carpenters could be spared from the necessary duties of the ships, a house was built for the reception of the instruments requisite in conducting the other observations and experiments.

Soon after our arrival here, Captain Lyon expressed a wish that his officers and men, with himself, should attend divine service on board the *Fury*, during the continuance of the ships in winter-quarters. This arrangement, which Mr. Fisher concurred with me in thinking in every respect desirable, was accordingly made, and we formed one congregation for the rest of the winter. Our lower deck afforded abundance of accommodation in this respect; some psalm tunes, which had been purposely set upon an organ, were played at the proper intervals of the service, and our little church formed a pleasing and interesting scene to

such as are disposed to be interested by scenes of this nature.

Our people were sent out to walk for exercise whenever the weather was favourable, and the duties of the ships did not afford them sufficient employment; care being taken to keep them together, under an officer, and to furnish them with proper arms. Finger-posts were also erected, as before, in various parts of the island near the bay, for the purpose of directing persons to the ships if surprised by snow-drifts.

Before the ships were permanently frozen in, several black whales came up to blow in the small pools left open by our cutting the ice. As a supply of oil would have been particularly acceptable just at this period, every endeavour was made to strike one of them, but without success; the young ice preventing the boats from approaching them, notwithstanding the ardour of our Greenland sailors in this pursuit.

I have before mentioned the myriads of small shrimps (*cancer nugax*), which for

some weeks past had been observed near the surface of the sea. These insects were found to be still as numerous as ever in any hole we made in the ice; and such was the extreme avidity with which they immediately seized upon any meat put overboard, to thaw or soak for the sake of freshness, that Captain Lyon to-day sent me a goose to look at, belonging to the officers of the *Hecla*, that had been thus deposited within their reach only eight and forty hours, and from which they had eaten every ounce of meat, leaving only a skeleton most delicately cleaned. Our men had before remarked that their meat suffered unusual loss of substance by soaking, but did not know to what cause to attribute the deficiency. We took advantage, however, of the hunger of these depredators to procure complete skeletons of small animals, for preservation as anatomical specimens, enclosing them in a net or bag with holes, to which the shrimps could have access, but which prevented the loss of any of the limbs, should the cartilage of the joints be eaten. For want of this

latter precaution some specimens were at first rendered imperfect.

A thermometer placed in the sun at noon to-day stood at 82° , that in the shade being at 5° . In the course of the afternoon I witnessed, for the third time in my life, that peculiar and delicate colouring of the clouds which I have endeavoured to describe in my narrative of the last voyage, on the 16th and 29th of April, 1820. The red tint was, as on both those occasions, nearest to the sun, and the clouds on which the colours were exhibited were passing within four or five degrees of that object.

We were occupied about this time in getting to hand in the holds the supply of provisions that would be required for the next six months, in order to prevent the necessity of opening the hatches oftener than once a week; an arrangement which was found extremely conducive to the cleanliness of the lower-deck, as well as to that of the men personally. While doing this, the opportunity was taken to place all the lemon-juice, pickles, cranberries, and any

other articles liable to damage by frost, as nearly amidships as possible. A single cask of lemon-juice was, however, left in contact with the ship's side as an experiment, of which some account will be given in another place.

A pair of snow-boots were now issued *gratis* to each individual in the Expedition, being part of a stock of extra warm clothing liberally furnished by Government, to be supplied to the officers and men, at my discretion, as occasion should require. These boots were made of strong drab cloth with thick soles of cork, the slowly conducting property of which substance, together with their large size, allowing a free circulation to the blood, afforded the utmost comfort that could be desired. Boots or shoes of *leather* never retain the warmth long, under circumstances of very severe exposure.

On the 19th we began to put on the housing-cloths for covering in the upper decks, and thus ensuring a comfortable and sheltered place for walking in any weather during the winter. These cloths were com-

posed of the same stout and serviceable material as before, but were now painted of a light colour instead of black, under the idea, suggested by some scientific gentlemen in London, of preventing in a certain degree the radiation of heat.

The wind veering to the S.E. on the 24th and 25th, the thermometer gradually rose to $+ 23^{\circ}$. I may possibly incur the charge of affectation in stating, that this temperature was much too high to be agreeable to us; but it is nevertheless the fact, that every body felt and complained of the change. We had often before remarked, that considerable alterations in the temperature of the atmosphere are as sensibly felt by the human frame, at a very low part of the scale, as in the higher. The difference consists only in this, that a change from -40° upwards to about zero is usually a very welcome one, while from zero to the freezing point, as in the instance just alluded to, it becomes to persons in our situation rather an inconvenience than otherwise. This may be more readily imagined, by con-

sidering that our clothing, bedding, fires, and other precautions against the severity of the climate, having been once adapted to a low degree of cold, an increase of temperature renders them oppressive and inconvenient; while any reduction (of the first two at least) is impracticable with safety. To this must be added, that at this temperature the snow becomes too soft for convenient walking, and the accumulation of ice in the crevices and linings of the officers' cabins is converted into a source of extreme annoyance, which, while it continues solid, is never experienced. It is true that these inconveniences occur in a much greater degree in the spring; but being then hailed as the harbingers of the return of permanent warmth, it is easy to obviate some and would be hard to complain of any of them.

During the month of October the Aurora Borealis was occasionally seen, though with little brilliancy.

Nov. 6.—For several days about this period the weather continued remarkably mild, the thermometer generally rising as high as

from $+ 20^{\circ}$ to $+ 28^{\circ}$ in the course of the day, from the 6th to the 16th. Most of our necessary arrangements for the security of the ships and stores during the winter being now completed, the people were employed in what they called 'rigging the theatre,' and on the evening of the 9th the officers performed the play of the 'Rivals,' to the infinite amusement of both ships' companies.

At two P.M. on the 11th, it now being the time of spring-tides, we observed a large crack in the ice near each of the ships, which on examination was found to extend a considerable distance outside of them. As it appeared very probable that a complete separation might take place, in which case the ships would have been drifted out of the bay, several fresh hawsers were run out a-head and attached to the grounded masses. On the following day, in order to obtain all the security in our power, some anchors and a bower-cable were run out and fixed on the beach. This precaution soon appeared no more than necessary, as half an hour before midnight the ice astern set out-

wards, leaving a little canal eight inches wide at the crack made the preceding day. By this disruption the ships were disengaged in part from the ice to which their sides were attached, and came a little astern, but fortunately nothing occurred to cause farther apprehension.

On the 1st of December there was a space of many miles in which none of the 'old ice' was visible. The sea was here for the most part covered with a very thin sheet of 'young' ice, probably the formation of a single day, since the westerly wind had driven the floes off the land. The whole of this was in motion with the tide, which breaking the thin floes left several spaces of clear water. It was observable that though a considerable frost-smoke arose from the young ice, it was not so dense as that from the clear water, immediately over every pool of which a little thick cloud floated, corresponding as well in size as in situation with the pool from whence it issued. A number of dovekies were swimming about the point; and it being desira-

ble if possible to obtain some of them for the sake of ascertaining their plumage at this season, we hauled the small boat over and launched her. Mr. Ross succeeded in killing one of the birds, which was preserved as a specimen, but it was with great difficulty that the boat avoided being carried away from the shore by the young ice. I was on this account afraid of repeating the attempt during the rest of the winter. One grouse was seen on shore; it appeared entirely white, except having its tail black near the tip.

I was this day under the necessity of closing in my stern dead-lights, and fixing the cork-shutters between the double window-frames of my cabin, the temperature having lately fallen rather low at night; in consequence of which one of the chronometers (No. 369 of Arnold) had stopped on the 26th of November. We had before this time banked the snow up against the ships' sides; but it was now thrown higher, and its thickness at the bottom increased to about four feet. Besides this, a bed of snow,

three feet deep, was subsequently laid on the deck, over my cabin, and also on the forecastle over the sick-bay, to assist in retaining the warmth in those parts of the ship, an office which it seemed to perform very effectually. It was impossible, however, as the cold increased, to keep up a tolerably comfortable temperature in the cabin, if the fire was suffered to go out for several hours: for instance, the night after the above arrangements had been made, the fire was out for only six hours; and the consequence was, that the thermometer fell to 27° , and could be got no higher the following day, in the after part of the cabin, though only nine feet from the stove, than 33° . This was indeed a most inclement day, the temperature of the atmosphere having for the first time fallen to -27° , accompanied by a fresh wind from the northward and westward.

A white hare was seen on shore on the 5th, as were two or three others in the course of the winter. It is difficult to conceive how these animals find subsistence

while the snow lies deep on the ground, unless indeed they become in a certain degree torpid during the winter. At Melville Island, where in the summer they were found in considerable numbers, we never saw one, nor even the track of one, before the month of June.

On the 11th, the wind being more northerly and the weather tolerably clear, stars of the third magnitude were visible to the naked eye, as late as forty minutes past eight apparent time, those of the second magnitude till a quarter past nine, and of the first till ten o'clock; after which the sky became rather overcast. This may serve to give some idea of the degree of light at this period. The twilight was of course of long duration, and the redness produced by the sun's rays was sometimes very plainly visible for more than three hours after its setting.

The temperature of the sea-water in the fire-hole was 29° , and by the same thermometer, that at the bottom in six fathoms and a half was 30° . The deposition of small

snow, which I have remarked as almost always going on in these regions in the winter, took place this evening in occasional showers, so thick as to oblige us to cover the instruments with which we were observing, though the stars were plainly visible all the time, and the night was in every other respect what would generally be called clear.

A great squeezing of the young floes took place at the S.E. point of the island on the 12th. The noise it makes when heard at a distance very much resembles that of a heavy waggon labouring over a deep gravelly road; but when a nearer approach is made, it is more like the growling of wild animals, for which it was in one or two instances mistaken. It was, however, rather useful than otherwise to encourage the belief that bears were abroad, as, without some such idea, people are apt to become careless about going armed.

On the 13th, the thermometer fell to -31° on the ice, being the greatest degree of cold we had as yet experienced. There

was, notwithstanding this, a great deal of open water in the offing, covered only by a very slight sheet of young ice. A favourite walk with the officers during the winter was round the S.E. point, where there was in consequence a hard and beaten path upon the snow. The rapid tide which ran here always kept the point clear of ice, whenever there was any open water at all; and accustomed as we had before been in the winter to a sea perfectly frozen up, it can scarcely be conceived what a relief it was to the tedious monotony of our situation to see water naturally in a fluid state and in motion, with birds swimming about in it, even at this inclement season of the year.

The thermometer rising to -5° in the course of the 17th, the weather appeared warm to our feelings. It proved favourable also for another play, which had been fixed for this night, and the 'Poor Gentleman' was performed by the officers in so admirable and feeling a manner as to excite uncommon interest among the men, and to

convince me more than ever of the utility of our theatrical amusements. The 18th was a remarkably clear day, without any of that cloudiness which usually hung about the southern horizon. The sun was therefore clearly visible at noon, when such was its oval shape, that its horizontal diameter exceeded the vertical by 4'.07". We had light in the cabin for reading and writing for three hours and a quarter without candles, and about five hours for convenient walking.

The shortest day had now passed, and all that could be remarked upon it was, that nobody seemed to consider it a matter of much interest one way or the other. On the former occasion, when novelty combined with the peculiarity of our situation to give it more importance, it seemed to constitute a sort of era in our winter's calendar, and excited a more than ordinary sensation in our minds. The case was now very different; our wintering was no longer an experiment, our comforts were greatly increased, and the prospect of an early

release from the ice as favourable as could be desired. Under these circumstances, it may easily be imagined how light the winter sat upon us, and with what comparative indifference we now regarded the passing of the shortest day.

On the evening of the 24th, being Christmas eve, the ships' companies were amused by the officers performing the two farces of 'A Roland for an Oliver,' and the 'Mayor of Garratt.' On Christmas-day, divine service on board the Fury was attended by the officers and crews of both ships. A certain increase was also made in the allowance of provisions, to enable the people to partake of Christmas festivities to the utmost extent which our situation and means would allow; and the day was marked by the most cheerful hilarity, accompanied by the utmost regularity and good order. Among the luxuries which our Christmas dinner afforded was that of a joint of English roast beef, of which a few quarters had been preserved for such occasions, by rubbing the outside with salt, and hanging

it on deck covered with canvass. The low latitude in which our last summer's navigation was performed would have rendered its preservation doubtful without the salt.

The concluding month of this year presented more frequent as well as more brilliant displays of the Aurora Borealis than we had noticed at an earlier period of the winter. On the afternoon of the 14th December, the Aurora Borealis began to show itself as soon as it was dark, but during the most splendid part of its continuance, it is impossible to convey to the minds of others an adequate conception of this brilliant and extraordinary phenomenon.

On the arrival of the last day of the year, it was impossible not to experience very high gratification in observing the excellent health and spirits enjoyed by almost every officer and man in both ships. The only invalid in the Expedition was Reid, our carpenter's mate, and even he was at this period so much improved, that very sanguine hopes were entertained of his con-

tinued amendment. In consequence of the effectual manner in which the men were clothed, particularly about the feet, not a single frost-bite had occurred that required medical assistance even for a day; and, what was more important to us, not a scorbutic symptom had appeared.

To increase our ordinary issue of anti-scorbutics, liberal as it already was, we had from the commencement of the winter adopted a regular system of growing mustard and cress, which the superior warmth of the ships now enabled us to do on a larger scale than before. Each mess, both of the officers and ships' company, was for this purpose furnished with a shallow box filled with mould, in which a crop could generally be raised in from eight to ten days. The quantity thus procured on board the *Fury* now amounted to about fifty pounds weight, and before the arrival of spring to nearly one hundred pounds; and, trifling as such a supply may appear to those who are in the habit of being more abundantly furnished, it will not be considered to have

been without its use, when it is remembered how complete a specific for the scurvy *fresh* vegetable substance has invariably proved. In consideration of the salads thus raised, Mr. Edwards recommended our reserving the cranberries intended to have been issued during a part of this winter, until circumstances might render them more essentially requisite to the health of the ship's companies. This arrangement was accordingly adopted, and the event fully justified its propriety.

With respect to the occupations which engaged our time during this season of unavoidable inactivity, I can add little or nothing to my former account of the manner in which we passed the winter at Melville Island; for the two situations were so nearly similar, and our resources necessarily so limited in this way, that it was not easy to produce much variety in the employment of them. It may be imagined, and was indeed anticipated by ourselves, that want of novelty was on the present occasion a dis-

advantage likely to render our confinement more tedious than before; but this by no means appeared to be the case: for the men, sufficient employment may always be found to prevent the possibility of their being idle; and I have already noticed the auxiliaries, to which we had recourse to assist in promoting this end; while most officers have resources within themselves, of which scarcely any situation or circumstances can divest them. What with reading, writing, making and calculating observations, observing the various natural phenomena, and taking the exercise necessary to preserve our health, nobody, I believe, ever felt any symptoms of *ennui* during our continuance in winter quarters.

Among the recreations which afforded the highest gratification to several among us, I may mention the musical parties we were enabled to muster, and which assembled on stated evenings throughout the winter, alternately in Captain Lyon's cabin

and my own. More skilful amateurs in music might well have smiled at these our humble concerts; but it will not incline them to think less of the science they admire, to be assured that, in these remote and desolate regions of the globe, it has often furnished us with the most pleasurable sensations which our situation was capable of affording: for, independently of the mere gratification afforded to the ear by music, there is perhaps scarcely a person in the world really fond of it, in whose mind its sound is not more or less connected with 'his far distant home.' There are always some remembrances which render them inseparable, and those associations are not to be despised which, while we are engaged in the performance of our duty, can still occasionally transport us into the social circle of our friends at home, in spite of the oceans that roll between us.

With our time thus occupied, our comforts so abundant, and the prospect to seaward so enlivening, it would indeed have

320 VOYAGE FOR THE DISCOVERY, &c.

been our own faults, had we felt anything but enjoyment in our present state and the most lively hopes and expectations for the future.

END OF THE SECOND VOLUME.

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